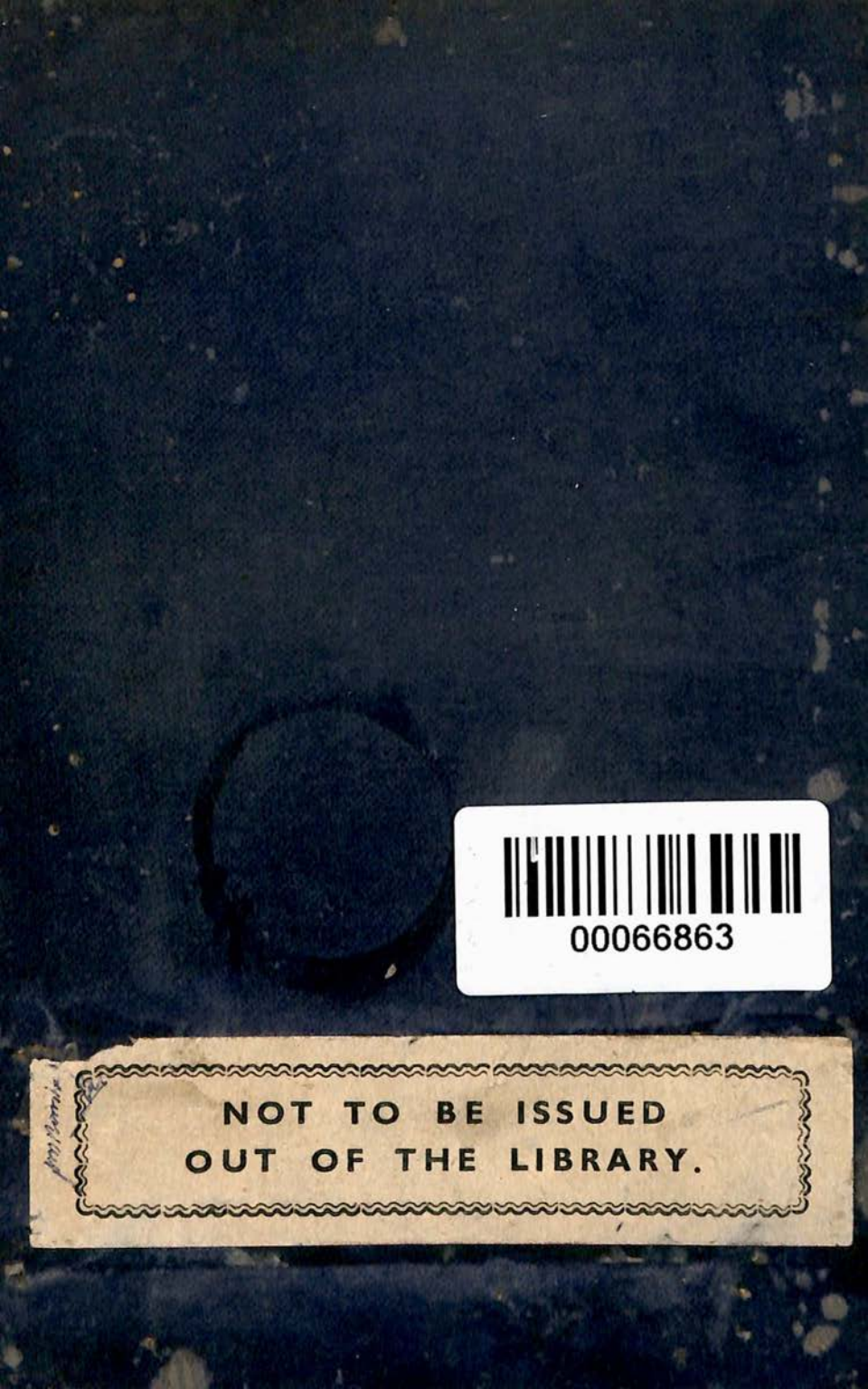
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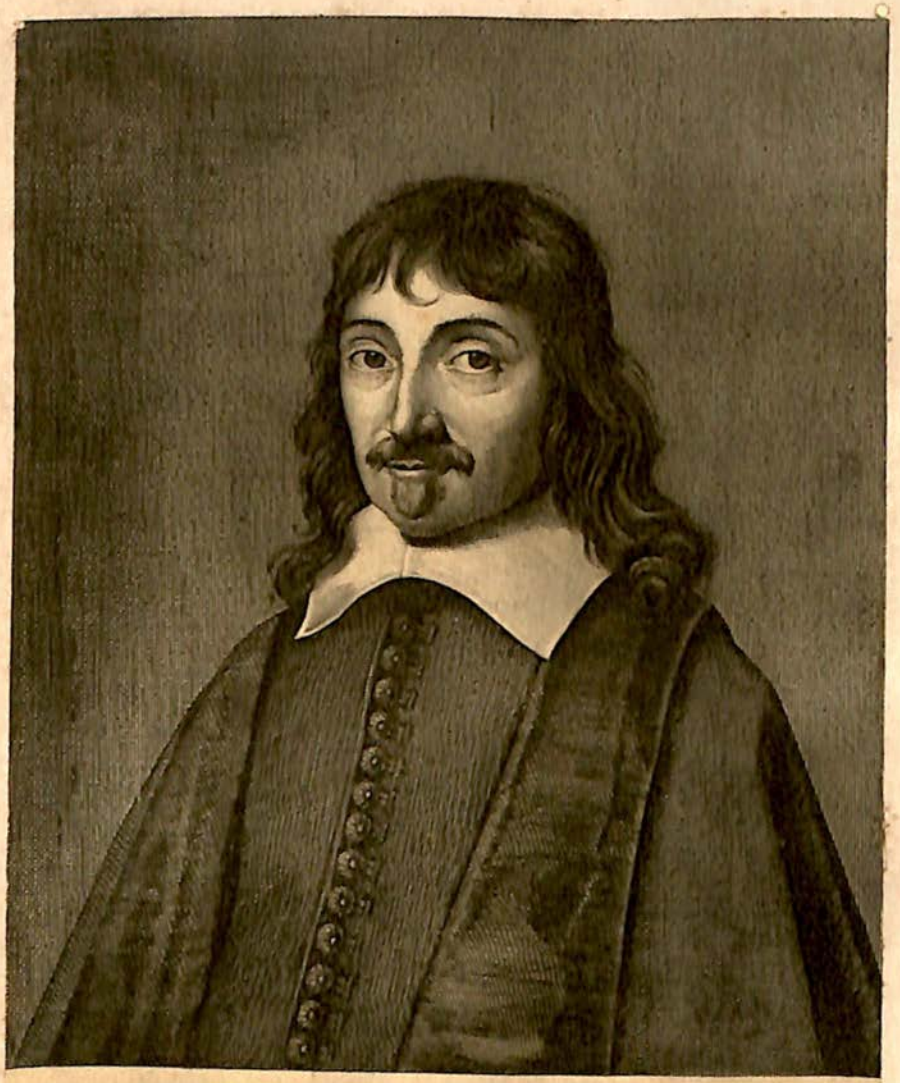

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RENÉ DESCARTES:

HIS LIFE AND MEDITATIONS.

A NEW TRANSLATION OF THE "MEDITATIONES,"

WITH

INTRODUCTION, MEMOIR, AND COMMENTARY,

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BY

RICHARD LOWNDES,

AUTHOR OF

"AN INTRODUCTION TO THE PHILOSOPHY OF PRIMARY BELIEFS."

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PREFACE.

THE History of Modern Philosophy, by Kuno Fischer, is, I think, a book not much known by England, certainly not so much as it deserves to be. Having by chance lighted on it, now some little time ago, and reading it, as such books are apt to be read, beginning somewhere in the middle, and working backwards, I was by turns drawn afresh to the study of Kant, and Leibnitz, and Descartes.

There is no doubt that the historical method of studying philosophy is the method least wasteful of brain-power, and so best adapted to the end of obtaining the maximum of utility at the minimum of cost. Original discovery is, I suppose, the supreme achievement of the human intellect,—the most valuable, likewise the most difficult. The strenuous effort of mind needed for the purpose ought not to be wasted over the discovering anew of that which has been discovered and published already. And yet, in philosophy more especially, nothing is more common. One reason no doubt is that the best of what has been discovered and published in recent times is

written in German, at considerable length, and in a style usually the reverse of clear. The kind of intellect which takes most pleasure in exploring fresh truths for itself, is precisely that to which an invitation to spend years in spelling out the thoughts of others is the most uninviting.

For this reason there is, in the distribution of parts in the world of letters, a demand for men like Fischer, who set forth in compact, clear, and orderly fashion, the results arrived at by the original thinkers of the past, for the use of those who care to know those results mainly that they may use them as stepping stones for going on further.

I found myself particularly attracted by Fischer's account of Descartes. Here, certainly, we have the real starting-point of modern philosophy. This is a point in its history that deserves to be studied with attention. Even the life of Descartes appeared to me very interesting, as exhibiting a man fairly possessed and mastered by an idea. His little "Discourse on Method" is a delightful piece of autobiography. But when I read the "Meditations," a strong desire came upon me to invite my friends, and any young student of metaphysics whom I might influence, to join me in reading this little series of Essays, at once luminous and profound; essays which,

short as they are, revolutionized thought in Europe, gave to philosophy a direction which in Germany at least it retains to this day, and enabled Descartes to divide, in the suffrages of the Continent, the honours of Bacon. For this purpose I have made a translation.*

The Introduction, for which the materials have for the most part been stolen from Fischer, and the concluding observations, or Commentary, are simply intended to fix the place of the "Meditations" in the history of philosophy, by exhibiting, on the one side, the state of the science at the time the "Meditations" were written, and on the other, the manner in which the problems and solutions of Descartes are taken up into the system of Kant.

WALLASEY, NEAR LIVERPOOL.

1878.

* There exist already two translations, one by William Molyneux, in 1680, the other anonymous, published in Edinburgh, in 1853. Both came under my notice too late for me to collate them with my own. The Scotch translation reads to me a little stiff and formal, but is very accurate. These are both, I believe, scarce books. I may refer, likewise, to Cunningham's "Influence of Descartes on Metaphysical Speculation in England," published in Liverpool (Brakell), 1875, the work of a learned fellow-townsman of mine.

ERRATA.

Page 38, line 17, for "transitive" read "transition."
„ 39, „ 29, „ "as" read "was."
„ 50, „ 16, „ "are" read "have."
„ 128, „ 29, „ "highnesses's" read "highness's.
„ 141, „ 29, „ "occured" read "occurred."
„ 199, „ 27, „ "motives" read "motions."

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INTRODUCTION.

§ 1. Object and Scope of Philosophy.

All systematic and searching enquiry, no matter what be its immediate object, leads up at last to problems, which appear to belong to some central science, having relations with every branch of knowledge alike. These problems are, as it were, veiled or shrouded one within another, in such a manner that the existence of a deeper problem is only discovered after the complete opening out of that problem which lies immediately nearer the surface. The history of philosophy, so far as it is the history of a true progress, is a history of the successive unveilings of deeper and yet deeper problems.

This central science,—whether we call it metaphysics, logic, or philosophy,—must at any rate not be less extensive than this,—the science of the conditions of a possible knowledge. No matter what it is that we know, or desire to know, our knowledge of it must at last be determined by our own faculties or capacity for knowing. Here we have ground that is common to every kind of science, and gives a certain generic unity to astronomy, botany, theology, and politics: it underlies them all, and all in the same manner.

Now the conditions of a possible knowledge must be found in the relation of the knower to the thing known;

and this relation must depend on the nature of the knower and likewise on the nature of the object of knowledge. Thus our central science must have for its immediate purpose the discerning of the relation between knower and thing known, and for its secondary or mediate purpose the discerning of so much, concerning the nature of both, as may serve to make the relation intelligible. Here we have the germ of the Pure and Applied Logic of Philosophy.

Every Science leads up to Philosophy.

Calling philosophy the central science, all other branches of methodized knowledge may be called, departmental sciences.

All departmental sciences may be reduced under three heads, sciences of physics or natural objects, sciences of mind, and theology,—nature, man, God, being the three objects of a possible knowledge. Each of these sciences may be carried to a certain degree of forwardness without any conscious need of philosophy; but even this only by means of assumptions in which the results of a philosophy are latent, and only so long as one science is studied by itself and not in correlation with others. So soon as a spirit of questioning disputes the assumptions, or so soon as the student endeavours to bring the results of one branch of science into harmony or correspondency with those of another, the need for philosophy emerges.

The Physical Sciences.

Take, for example, the physical sciences. Men direct their attention to certain classes of external phenomena, —to the movements of the stars, to the configuration of plants, to the various composition of the earth's crust,

or what not: these phenomena they speculate and reason upon, using for this purpose faculties of observation, memory, judgment, and reasoning; the nature of which faculties they do not stay to criticize, but, without knowing why, as a matter of course, assume that these faculties work true, and give results which in no way distort the actual facts of nature. It may be wise to make this assumption. The majestic and many-sided orderliness of nature, which physical science, acting on this assumption, has evolved, furnishes, no doubt, a strong presumptive proof that this assumption is justifiable: for, this cosmos, or realm of order, has two sides,—it is at once a world external to the scientific mind that apprehends it, and likewise a knowledge existing within that mind; and the mind that can apprehend such a cosmos must, one may fairly infer, contain within itself a corresponding principle of orderliness. Still, justifiable or not, it is with an assumption that the student of physical science has set out, and such an assumption as, when challenged, he must be prepared to justify; which he can only do by calling in the aid of philosophy.

Again, there comes in the history of physical science a time when each separate branch of it is no longer exclusively studied by itself, but men of science feel impelled to draw the several parts together, and by means of larger and bolder generalizations to organize it into one whole. This is in fact a mere continuation of the process by which particular sciences (such as botany or chemistry) come to be formed, namely, a penetrating to the unity of law which underlies variety in the phenomena. All, or most, physical sciences lead to such broader truths as these: there exist two dissimilar entities, matter and force, and there is a law of necessary, or at least

universal, causation. One kind of force is life; and life has many grades, from that of a bit of lichen or a blade of grass, through animals, up to the life of man,—this last being a life which contains the remarkable phenomena or illusions called free-will, and a sense of right and wrong.

The law of necessary causation, if applied with that rigorous consistency which is to the man of science as essential as any other of his scientific instruments, goes right through this free-will, the moral sense, and creation itself, and leaves nothing but an infinite regress of mutation, not only never completed *a parte ante*, but the completion of which in that direction is inconceivable. Free volition, whether on the part of man, in lifting his arm or putting one foot before the other, or on the part of God, in creating a universe, contains the element of an absolute beginning, that is to say, a change produced without a cause; consequently runs counter to the axiom of causality, which is, "nothing begins to exist without a cause,—*ex nihilo nihil fit.*"

Here our man of science is or ought to be brought to a stand, and compelled to ask himself the question, whether the assumption above referred to has not been challenged, and challenged by himself.

He has placed absolute reliance on that natural instinct which bids him believe that what he sees and touches *is* that, or like that, which those senses report to his mind; that what he remembers did actually occur; that the various processes of judging and reasoning which he uses in his scientific operations contain within themselves no distorting medium: in a word, that the complete fabric of his intellectual nature is so constructed as to be a witness for truth. He has taken all this, and more of the

same kind, for granted, without so much as thinking about it; for I am supposing our man of science to be ignorant of, and very likely to despise, metaphysics. Side by side with this complex fabric of his intellectual nature, co-existing with it in the same subject, is the fabric, no less complex, of his moral nature. He himself was, till science threw doubt upon it, and the great unscientific majority of mankind are and always have been, disposed to place at least as absolute a reliance on their moral as on their intellectual instincts. The feeling that such or such things *ought* to be done, or at least, more generally, that I ought, or am morally obliged, to do that which I believe to be right, or abstain from doing that which I believe to be wrong, appears at first sight—that is to say, until a man has closely investigated the subject—to be as strong and peremptory as any intellectual instinct whatever. Yet, because the intellectual portion of his nature gives results which appear to be incompatible with this report or declaration of the moral portion, our man of science has had no hesitation in pronouncing this latter to be a mere illusion. Now he may, conceivably, be in the right when he does this; but only, I think, if he does so after a sufficiently searching investigation of the comparative validity of these two classes of instincts; that is to say, after a certain schooling in metaphysics. To do this prematurely,—to reject the moral instincts without so much as an enquiry, from a mere fixed contemptuous impression that metaphysical study must be a waste of time,—would lay our man of science open to the same reproach which he with much reason addresses to those theologically-minded persons who condemn his theories as counter to the book of Genesis, without taking the trouble to read or listen to his arguments.

But perhaps our man of science does not pronounce the moral instinct and the implied sense of freedom to be illusions. Very well: then he must reconcile them in some way with his law of necessary causation: and the attempt to do so leads him, inevitably, to this *prima philosophia*, or metaphysics.

If physical science leads up to philosophy, it is no less true that the study of human nature, *i.e.*, of the nature of mind or soul, and likewise the study of theology, if these studies are carried on scientifically, that is to say, in a systematic and searching way, must have the like effect. I need not waste time in setting forth the proof of what is so obvious.

Psychology.

Concerning the study of human nature, or Psychology, I desire here merely to call the reader's attention to the remarkable dualism within his own mind, which is implied in the unquestionable fact that he is able to be the knower of himself, that he can as it were sit apart and observe how he himself feels, thinks, or wills,—his inmost self being thus a spectator of his inmost self. This fact obliges him to distinguish in thought himself as knower from himself as object of that knowledge, and this although he is firmly convinced that these two are one.

Theology.

Theology has or may have to do with objects which transcend all possible knowledge,—objects which can only be, I will not say apprehended, but I may certainly say believed, by a faith which goes out beyond the sphere of things known. Such at least is the pretension advanced by every positive religion, not by the Christian

only. The very existence of such religions raises of itself, in the mind of anyone who makes it a question, whether he himself shall or shall not embrace this or that amongst them, preliminary questions in philosophy such as these: What is the supreme test or standard of truth? What, if any, are the limits of human reason? What possibility, and what justification, if any, is there for believing that which transcends these limits?

Thus every department of human enquiry leads those who think deeply up to this central science of Philosophy.

§ 2. State of Philosophy in the Youth of Descartes.

The manner in which the problems of philosophy are veiled or shrouded one behind another, so that in searching out the solution of that which lies nearer the surface, the problem next underneath is opened out, may best and most pleasantly be exhibited by examples. To do this at large, giving the evolution of the problems in their natural order, is the business of a History of Philosophy. I propose to myself to write a single chapter of that history only,—to exhibit the evolution of a single problem. To do this, it is necessary first to present to the reader the state of the science prior to its evolution.

This may be done in a single sentence. At the time when Descartes thought out his Meditations, the Scholastic philosophy was taught in all the schools and universities throughout Europe, and was there regarded as the only orthodox and solid system of doctrine; whereas outside those seats of learning that philosophy was almost as universally discredited and despised, and there was a vague yet powerful impulse upon men, urging them to

create from the beginning a new system of speculative thought, as independent of classical antiquity, even at the risk of being as unlike it, as the civilization of modern Europe—its polity, its religion, its art, its morality, its idea of the meaning and purpose of human life—are independent of and unlike their prototypes in ancient Greece and Rome. To this impulse Descartes gave a definite expression.

Trite as the subject is, I venture to say a few words here on the extinct philosophies of antiquity, particularly that of Greece; on the Scholastic system: and on what may be termed the inchoate philosophies of the Renaissance, that is to say, those crude and confused struggles of free thought, which in their very infancy were superseded by Cartesianism.

§ 3. The Philosophy of Greece.

The Greek philosophy existed in Europe at the time of Descartes much in the condition in which the Forum Romanum and the Palace of the Cæsars and the Colosseum exist at this day in Rome,—as ruins, majestic, but totally uninhabitable,—things which have passed away. Yet that philosophy had had a youth, growth, history of its own,—a progressive unveiling and solving of its problems,—which, if it could have been studied by Descartes and his contemporaries with the light thrown upon it by modern criticism,—such for example as that of Hegel or Grote,—might have been serviceable to them in the task which lay before them, namely, that of at once emancipating philosophy from its too close dependence on dogmatic theology, and placing it upon a solid and permanent basis of its own. For the Greek philosophy

had in like manner first to purge itself of mythology, and then to struggle, by no means without some success, to establish for itself a solid standing-ground against the assaults of scepticism.

The Ionic School.

First, Thales and the Ionic Nature-philosophers had, in the form of a dogma, propounded the hypothesis that Nature, or the aggregate of things that exist, must in some sense be One. That one must be the primal element, the substance, by mere modification of which all things come to be such as they are. This was their vague conception whether of God or of protoplasm. Thales pronounced the element of all things to be water; Anaximenes, to be air; Heraclitus, fire; Anaximander, a something undefined, we know not whether he meant "a something thicker than air and thinner than water," or a substance unlike either. Pythagoras refined on these conceptions, requiring a basis somewhat less material still, something more like spirit, namely, Number, as the first element of things.*

The Eleatics.

Then came the terrible school of Elea, disbelieving and mocking. "You say you have the one: we see around us the many: how can the One become Many?" On this question they ring a perplexing variety of changes. This controversy engendered or evolved the pseudo-science of Dialectics,—the art of so using some

* Aristotle points out that no one ever took earth to be in this sense an element, because of its heterogeneity,—διὰ τὴν μεγαλομερείαν: the primal was thus dimly felt to be simple.—*Hegel*, 1 *Hist Phil.*, p. 210.

one of the several sides of truth as to baffle and confuse those who look to any other of its sides.

The problem which the Eleatic nihilism thus brought before philosophy was, How are we to explain or account for the "world-process"—the mode in which the primal Being or element passes over into, or becomes, this complex and various world we see around us. This question necessarily emerges, so soon as the theory of a simple or single basis of existence has been propounded. Now the world-process must consist of a number of changes; and what is *change?* It involves a difficulty amounting to a contradiction. That which changes, is it, at the instant of transition, in the condition it changes from, or in that it changes to? It must be in both at once, otherwise there can be no change: it cannot be in both at once, otherwise the same thing is at the same instant of time unlike itself, *i.e.*, there is something about it which at the same instant is and is not.

Here, then, is set up an apparently insoluble problem, and in the desperate effort to solve it, theory after theory is started. Change *is*:—it is *for us*, we see and are conscious of it all around and within us. Change is impossible; it involves a contradiction: *in itself* therefore there can be no such thing. The same thing is and cannot be. How are we to explain this?

The discussion which hereupon arose had two parts; the first dogmatic, the second critical. That is to say, the first part was an attempt to solve the problem, the second was an attempt to discover the reason why it was insoluble. The first part was laboured at by the Eleatic School, Heraclitus, Democritus and the Atomists, and Anaxagoras. The second was the work of the Sophists and of Socrates.

Xenophanes and Parmenides.

The dogmatic aspects of the controversy may be briefly summed up as follows:—One theory started was, that all seeming change is mere illusion: existence is One, absolute, containing no negatives, consequently no variety, for variety as well as change involves the elements of negation: the one is not really the many.*

Heraclitus.

Another, that change and incessant movement is the basis, and the only basis, of all things, and that what is illusory is the idea of a central, or indeed of any other, unity: the Universe is a stream of incessant and infinitely minute changes. Mutability, as Spenser has painted her, is the supreme Goddess and principle of all things,—if that which is the very negation of personality and unity can be personified, even for poetical purposes. The Many are not really the One. Such is the solution of Heraclitus.

The Atomists.

From this springs naturally the Atomistic theory of Leucippus and Democritus. This theory is an endeavour to give a sort of solidity and reality to the mutability of Heraclitus, whilst retaining his controversial advantages in the denial of an all-embracing One. The veritable original of things is taken by these Atomists to be, not one, but innumerable, indefinitely minute, homogeneous atoms, the mere mechanical combination of which makes up the variety of nature.

* Hegel, Hist. Phil., pp. 261-275.

Anaxagoras.

And from the Atomists, as inevitably, follows the recoil to the antagonistic, or complementary, doctrine of Anaxagoras. There must be, besides our atoms, a principle of order and law which brings and binds them together under determinate and various relations: thus there is a Force or God working on nature *ab extra*. But the action of this Force on the atoms is again a bringing of the Many into One, and so we are left where we were, —our problem, how to reconcile the reality and the impossibility of change, still unsolved.

The Sophists.

Then come, as the last resort, the critical attempts to master the problem, by determining the reason why it is insoluble. This must be, say the Sophists, because reason is incompetent to discover or to discern truth. Their basis is, a thorough-going scepticism. This is defended by pointing out the inconsistencies of every then extant system of philosophy. It may likewise be proved by an argument founded on the nature of knowledge, or that which passes by its name. Knowledge is a spiritual process carried on by a single being as the knower: it is thus a gathering of the Many into One, or a series of changes on a permanent ground: in other words, it is for the human mind precisely that which Zeno and the Eleatics had proved to be impossible for the universe. It is, consequently, an impossibility.

The practical uses to which the Sophists turned their scepticism are familiarly known. Knowledge of truth being impossible, there remains, in place of philosophy, or the science of truth, only the science of persuasion;

which consists in finding out those subjective grounds whereby we can induce this or that man, this or that body of men, or perhaps mankind in general, to believe that which we wish them to believe. Philosophy is converted into Rhetoric.

Indirectly, however, the Sophists rendered a real service to the growth of philosophy. In exposing the futility of the earlier systems, they laid bare its cause, namely, that their authors had plunged into speculations concerning the nature of things, without a previous investigation of the extent and limits of their own powers for apprehending it. They in fact advanced the problem of philosophy by transforming the statement of its terms. It had been. What is the genesis of Nature? it became, What is the genesis of Knowledge?

Socrates.

Socrates—not the Socrates of Plato, that is to say, not one character in Plato's Imaginary Conversations, but the Socrates of history—applies himself to this problem. The Sophists have agreed, from the contradictions and diversity of human opinion, from the impossibility of finding convictions which are proof against cavil, that there can be no such thing as truth. "Yet truth," as Hegel has said, "is a great word, and one that makes the heart beat." We will not lightly acknowledge that truth is unattainable. Let us see whether it may not be possible, by searching a little below the surface, by skilful probing, by "midwifery,"—to use Socrates' favourite metaphor—to discover and bring forth, amid the apparent diversity of opinion, some convictions in which all mankind are at heart agreed. That is the thought of Socrates. A latent and deeply-rooted unanimity, under-

lying mere superficial diversity of opinion, may serve as the criterion of truth. To seek out this unanimity is the purpose of these conversations in the market-place, these homely illustrations, this adaptation of his questionings to the everyday concerns of persons apparently taken by preference as men apart from science, which form the peculiarities of the authentic or traditional dialogues of Socrates. Real talk, out of the heart of people of rough uncultivated good sense quite as much as from the educated,—talk gently led by skilful questioning from the outside of a subject into the depths of it,—was the material he required for his purpose. What he had to ascertain could not be brooded out in solitude, nor elaborated in a book,—the living traffic with mankind was needed for it.

Plato.

Plato expands the work of Socrates into a great system. He examines what is the common basis of this latent unanimity of belief. He finds that those beliefs which all unconsciously share are at last Ideas, or conceptions which in one aspect or another run out beyond a possible experience, being universal, and expressing a striving after, or a resting in, the absolutely Perfect. These Ideas he regards as the most real, earliest, most self-existing, of all things; much in the sense in which an artist, who is conscious that what he paints or writes is present to him before-hand as an idea guiding his hand, is ready to pronounce that idea, the archetype or model he is imitating, to be more and not less real than those strokes of the pencil, or those pothooks and hangers, with which he labours to embody it. Here, then, we have the Ideal world, the Intelligible world, or the world of

Noumena, placed (somewhat in the air or sky) as the summit of reality, and the actual world around or within us subordinated to it. External nature becomes idealized as the Cosmos, or expression of the divine principle of Order. Political and social life is the imperfect striving towards an ideal State or Republic, wherein the community, and through it each of its members, shall attain the utmost perfection they are capable of. Even the pursuit of truth is only to be carried on successfully by a purification of the enquirer's own inner nature, rising to its own ideal perfectness, and so to its apprehension of that which is ideally perfect, by renunciation of sensuous desires,—desire being the very root of sensuousness, and that which darkens the else lighted world within our souls. Thus philosophy demands a certain abstinence, and a dedication of the heart to ideas. Thus alone are we to rise to the apprehension of the eternal purpose working through life and nature, so as to lead the soul upwards to the ideal world. Thus Plato's doctrine becomes religious and reformatory, and herein Plato is akin to Pythagoras.

Aristotle.

What shall we set down as the special contribution of Aristotle to this one continuous work which has by degrees been unfolding itself in our little narrative? Fischer pronounces that contribution to have been the doctrine of Development; that is to say, the idea that change or growth, whether in the world of matter or of spirit, consists in the transmutation of capability (Dynamis) into actuality or active operation (Energeia). In this idea we have an explanation of the union of Matter and Form: form dwelling in matter as a poten-

tiality or latent impulse, in virtue of which such or such matter has a tendency to unfold itself into such or such a form, and so to become an energy or actual somewhat. Every actual thing is thus the expression of an energy that has succeeded in expressing itself. Nature in the aggregate must be regarded as a series of such expressed energies, of which the lower always contain the germs of the next higher. Things are *Entelecheia, i.e.*, each a unity containing in itself a purpose: and the world is a gradation of *Entelecheia*. And that movement which goes on in the world—the movement from year to year, from age to age, from cycle to cycle—the "world-process," is to be regarded as a progress in which matter forms itself, form completes itself, aptitude realizes itself, and that which has been realized still again furnishes stuff or material for higher formations,—that is, it must be regarded as Development. What is thus true concerning the material universe holds good likewise for the world of mind. The growth and inner movement, whether of the individual mind, or of this or that race of men, or of the human race itself,—may be regarded as a progressive transmutation of aptitude into energy,—an awakening rather than a becoming. Thus in place of the Platonic dualism and repugnancy of mind and matter we have a harmonious interaction between them,—a sort of fusion which points towards that pole-star of modern (at least of modern German) philosophy, the merging of the apparent dualism of mind and matter into some higher unity.

In thus compressing into a few sentences that which is to be said concerning two such wide-ranging and many-sided thinkers as Plato and Aristotle, it must be understood that Fischer is merely touching on the fringe of a

great subject. What he aims at in this rapid glance over the history of the Greek philosophy is merely to exhibit the manner in which the constant problems of human thought,—problems essentially the same for all ages, however dissimilar their outward garb,—by degrees unfolded itself in this, the golden age of philosophy. Even this has been exhibited by him, and by me who have followed him, in a partial and one-sided manner. Concerning Aristotle, in particular, much might have been added, touching, for example, the prominence he gives to sensible experience of individual facts, as the starting-point, not in the logical, but in the historical order of thought, *i.e.*, in the process of the acquisition of knowledge.*

At this point, strange to say, these high and broad speculations enter upon a long period of hybernation,—a period from which it may without inaccuracy be said they are only now beginning to emerge,—for it is not emerging, when their names and forms of speech are used, as by the schoolmen, with a total misconception of their true meaning. They form as it were a buried treasure, only now beginning to be converted again to use. This is an incident of divine Providence which is strange, mysterious, hardly credible. Yet it is only one portion of a broader and better known incident, equally such as could never have been anticipated by human foresight, viz., the complete submersion and very slow revival of civilization which followed the decline and fall of Rome. For at least twelve hundred years after the death of Aristotle, the human race appears, in culture, in

* 1 Fischer's Hist. Phil., pp. 21-23.

development of intellect, in the expansion of knowledge, to have gone backwards, and the rise from that depth has been very slow.

And yet during the whole of this period there was a movement of some kind, even a movement in philosophy, and that of such a nature as to assure us that we cannot possibly again reach the level of Pericles' Athens without at the same time finding ourselves in possession of a wealth of intellectual material, as also of moral and spiritual insight, such as must render the new phase of civilization immeasurably superior to the old.

The consideration of this second growth, beginning on a lower level, will form the subject of the following section.

§ 4. The Scholastic Philosophy.

I will not occupy the reader's time by going over the well-known track which leads from Aristotle to the schoolmen, except to indicate with the fewest possible strokes what may be termed the salient points in the transition; and this I think I can most conveniently do by continuing my plagiarisms from Fischer.*

Change of Problems after Christianity.

The Christian religion is what lies at the heart of that transformation of philosophy which we find to have taken place in the interval between these two periods. The problems have been changed, because the very conception of human life itself has undergone a change,—one which has, it is not too much to say, reversed the proportions occupied, in the interests of all enquiring minds, by

* 1 Fisch. Hist. Phil., pp. 33-65.

this present life and the life that is to follow death. Lucian only expresses the general feeling of classical times, when he sets before us the shade of one who in his lifetime had been a beggar, doing daily battle with hunger, childless, lame, and blind, yet in the dark kingdom bewailing the loss of his existence gone,—"for life is sweet, and death is dire and detestable." In the times of the schoolmen, and for centuries before, the prevailing conviction, strongest in the most vigorous intellects and the most impassioned hearts, was, that life was utterly valueless and insignificant, its pleasures and its most vital and permanent interests alike beneath the attention of a rational being, except as the battle-field on which was to be fought out, each man for himself, that tremendous conflict with unseen powers, whose issue was to be either perfect happiness or absolute misery in an existence that was only to begin when the combatant should cease to live. To the Greek, life after death was a vague shadow-land; to the mediæval Christian, it was the reality which brought down all that men strove and cared for here to insignificance.

Regarded solely in its intellectual aspect, in its influence upon the history of philosophy through the effect it had in directing the thoughts of the deepest thinkers into a different channel, what most concerns us in this change at present is, that Christianity now brings before us, as the master-problem of mankind, the question, each man for himself, "What must I do to be saved?" The answer of Christianity has been and is: "Believe in Christ, the Son of God, and thou shalt be saved." This answer, to those who think at all below the surface, brings up the further question: "How, and what, shall I believe?"

Pre-Christian Subjectivity.

This turning of men's thoughts from the objective to the subjective,—from the problem of the nature and origin of the universe to that of the hopes and fears of the individual soul,—dates further back than Christianity. Fischer notes as one initial stage in it the predominance of ethical speculation in the Stoic, Epicurean, and Sceptical schools. When Athens ceased to be independent, and when Rome ceased to be free, we find a repetition of the same phenomenon,—the state and its concerns ceasing to attract the keenest interest of the deepest thinkers, the thought, thus disengaged, turns inwardly upon itself, and ethics, self-questioning, in a word the subjective, takes the foremost place. Stoics, epicureans, and sceptics, by different methods, work at the same problem,—the disengaging of the soul from the world,—by disdain of outward evils, by procuring of pleasure rendered the more permanent through refined temperance, by escaping the perturbations of the search for truth in a fixed conviction that truth is nowhere to be found. Thus the soul shall free itself from the hindrances of matter, and rise to the contemplation of the divine idea. But all these methods fail, nay even plunge the soul deeper in that selfishness or self-seeking which is found to be at the heart of its enslavement to material evil. The stoic makes of his austere virtue a sort of selfishness, for it contributes to his self-esteem. It came to be dimly discerned that what was needed for the soul, and for mankind, was a kind of purgation by some external remedy from the clinging evil of the flesh or matter which kept down the soul from the level it would soar to. This conception, with its various ramifications, furnishes the key to those strange

and wild speculations which occupy the centuries between Aristotle and the Christianizing of philosophy. Out of this grew the Neo-Platonic and the Neo-Pythagorean systems; Gnosticism, with its graduated hierarchy of creative or ante-creative Gods; philosophy's absorption of the Orphic and Delphic mysteries, of Eastern Magic, of Jewish Messianic expectations; at a later stage, that blending of Gnosticism and Judaism which culminates in the Alexandrian doctrine of the Logos,—the Word or Power of God, passing forth into act, whilst the Essence of God remains aloof and independent of the world, the Logos thus constituting a species of mediator between God and man. Thus from every side there flow in preparations for Christianity, recognitions of a need which Christianity was to satisfy.

Christianity.

Then comes Christianity, and passes like the wave of an earthquake into this sea of opinion. This is not the place for theological speculation, and therefore I shall only say that, whatever were the cause,—whether or no we shall refer it to the direct teaching or personal influence of its Founder's life, or to the intense conviction wrought by the witnessed miracle of a rising again from the dead, or to purely natural causes, one fact is certain, namely, the then civilized world came by degrees to be convinced that the Mediator between God and man, the Redeemer of mankind from the power of sin and evil, had actually come into the world, historically lived and died and risen again, in the person of Jesus Christ; and, further, that He had established a living and organized society, whose function it was to maintain and diffuse the truth concerning this stupendous fact.

The Fathers of the Church.

This truth, as it entered and modified the minds of the more thoughtful, needed to be developed, by being brought into harmony with their beliefs on all cognate topics. To do this was the task of the Fathers of the Church. This truth had two sides—the doctrinal and the historical. On the one side, Christ came from God, was the very Word of God: his work was the carrying out of an Eternal Purpose of God, of not later origin than the creation of the world. On the other side, Christ was a man who had actually lived and died, in a certain district of Judea, at a determinate time. Every doctrine which contradicted either of these two fundamental truths had to be renounced and expelled from that organized society, the Church, as heresy. Every doctrine which was necessary, as the condition for entertaining either of these fundamental truths, had to be adopted and set forth as an ingredient of the true faith. Mankind has been reconciled with God through Christ. The acceptance of this fact presupposes certain doctrines concerning God, concerning Christ, concerning mankind. God must be thought as a Person, absolutely just, and absolutely good. Christ must be thought as a Being competent to be such a mediator, therefore at once man and more than man,—a Being not in his own person subject to the conditions which render man incompetent to redeem himself. And mankind must be thought as a Being at once capable of, and requiring, this reconciliation through redemption. Hence emerge, as necessary constituents of Christianity, the doctrines of Theism, the two natures of Christ, and the Fall of Man. If not in their historical origin, yet in the distinct apprehension of their fundamental character,

as necessary conditions of membership of the Christian Church, we must set down these doctrines as derived from the Patristic period of Christianity.*

The Church.

The Church, purged of heresies, adopting as its standard of belief the Patristic theology, goes onward in its mission of obtaining an absolute mastery over the thoughts and lives of men. It becomes a regular hierarchy, centralized at length under the Bishop of Rome. It enters into a formal alliance with the Empire of Rome, that is, with the civil governor of civilized mankind. It becomes the sole ruler and the sole exponent of the thought of the world. Centuries pass on, and with every century the Church's domination grows more absolute. The world hardens, and threatens to grow stereotyped in these convictions.

The Scholastic Philosophy.

Such is the condition of things, when the Scholastic Philosophy begins to develop itself.

Its Origin.

This philosophy grew up quite naturally, and one may say inevitably, from the conditions of the Church of the Middle Ages. Theology had to be taught to youths training for the priesthood. Cloister and cathedral schools, and at a later period universities, of which the first and most considerable were in England and Ireland, were instituted for this purpose. The teachers were men of much leisure, and of learning, if narrow, thorough, in the sense of being a complete mastery of all that was then

* 1 Fischer, Hist. Phil., pp. 55-64.

to be known They believed—indeed belief is far too weak a phrase, they regarded it as no less certain than any law of nature or axiom in mathematics—that what the Church had to teach was absolute truth. They had enough of Aristotle, to say nothing of any inborn faculty of their own, to satisfy them that truth must be self-consistent and harmonious, and therefore might be harmonized. The conception by degrees formed itself in the minds of the more vigorous amongst these schoolmasters, that a philosophical system of theology, a reasoned faith, might and ought to be constructed. The Fathers of the Church had declared what was to be believed; let the schoolmen now demonstrate, *why* this belief was true. *Deus homo*, says the dogma: Scholasticism asks the question, Cur *Deus homo?*

"Scholasticism," says Fischer, "has the decline and fall of the old world behind it. It begins in the Franco-Carlovingian Empire; it develops itself in the Germano-Romanesque family of nations, in the world of modern history, in England, France, Spain, Italy, Germany. Its period, leaving out of sight its first isolated anticipations in the Ninth Century, extends in an unbroken course from the end of the Eleventh to the middle of the Fifteenth Century. Its spirit is throughout ecclesiastical. . . . The theological system of the mediæval Scholasticism and the hierarchical system of the Romish Church are of one and the same spirit, and of one and the same age; the first ecclesiastical scholastic is in time and in spirit a contemporary of Gregory VII."*

Thus for the first and only time we have Philosophy and Christianity working, not as two independent forces which may or may not strike an alliance, but in absolute

1 Fisch. Hist. Phil., pp. 66-67.

fusion, Philosophy supplying the method and Christianity the materials. We must here content ourselves with briefly noting the progress, and the results, of this fusion.

The Ontological Proof.

The first great contribution of Scholasticism to Philosophy is given by Anselm, Archbishop of Canterbury. It is the celebrated Ontological Proof of the existence of an absolutely Perfect Being; a proof which, as stated by him, is strikingly characteristic of the scholastic spirit. We have within us or can frame the idea of a Perfect Being. But existence is one attribute of perfection: a Perfect Being, that does not exist, wants one attribute of perfection, consequently is not perfect, is a contradiction, is impossible. Therefore a Perfect Being exists.

The Scholastic Proof of Christianity.

The same great thinker follows out this demonstration into a consequent proof of the *à priori* necessity for the principal dogmas of the Catholic theology.

"The necessity of the Incarnation is demonstrated from the necessity of Atonement. Our sin is an offence towards God, an infinite offence. To be forgiven without anything more would be contrary to God's justice; to be simply punished would be impossible, for the punishment must be infinite, nothing short of annihilation; and this would inutilize the purpose of man's creation. There is but one escape: the offence must be compensated for, that is, satisfaction must be made to God. Here is the necessity of satisfaction. Redemption is explained by satisfaction. The act that shall satisfy and purge away this infinite offence must itself be one of infinite value. To such an act man is incompetent. Therefore God Himself must perform it for us, in our stead. Here is the necessity of vicarious Redemption. This necessity explains the Incarnation of God. The God-man performs more than He is

bound to do. He suffers and dies for the sin that He has not committed. He sacrifices Himself for mankind. Here is the necessity of the sacrificial atonement of Christ, His vicarious suffering and death. This sacrificial death is an infinite merit. God must make compensation for it. To Him, the God-man, God can give nothing; therefore He forgives the sin of those for whom Christ offered up Himself: thus the redemption is motived by the substitution, this by the satisfaction, and its necessity by the fall of mankind into sin."*

Realism.

Fischer proceeds to point out that this entire demonstration rests on a fundamental assumption, on the validity of which its force depends. That assumption is, that mankind, the mankind which in Adam has sinned, and in Christ has been redeemed, is one whole, a species, a real and actual Being. "Mankind" is thus one universal and real thing. "Mankind," however, is a universal notion, and only one among many other universal notions. What is true of one such notion must be true of all. Universal notions, then, have a real existence. Species are realities. The Church itself is likewise a reality, a universal unit—*Universalia sunt realia.* Thus the demonstration of the Church doctrine contains at its basis the theory of Realism. Just as the real existence of God is proved from the existence of the idea of God, so Realism underlies and forms the basis of this entire demonstration of the Catholic system. And thus emerges, as the earliest purely philosophical doctrine of the Schoolmen, the doctrine of Realism.

Nominalism.

But no sooner was this principle articulately announced, than it called forth an antagonistic doctrine, which, at

1 Fisch. Hist. Phil., p. 69.

first timidly, but afterwards with great boldness, strove against it for the mastery. The spirit of scholasticism was one of the freest, nay the most daring, rationalism. The Church-system, not simply as being true, but as absolutely necessary, as the only possible explanation of human life, was with the most implicit confidence defended on grounds of pure reason. Its vindicators were too certain of their cause to discourage the freest exercise of reason on the other side. Indeed the other side had no suspicion that they were throwing doubt on the Church-system. Its supporters would have held it impious in the last degree to do so. They questioned only the mode of vindication adopted by the Realists. They questioned only the assumption with which the Realists set out.

Are universal notions, they asked, anything more than names? Is it not true that what is real is always what is concrete, particular, individual? Is it not by a mere process of grouping together, and for convenience of reference naming together, aggregates of such among these real things as have a general resemblance, that we come to frame general or universal notions? And, if so, can it be said that these groups, as such, have any reality beyond that which our own process of grouping has given them; in other words, a mere subjective reality as objects of thought, but in themselves, as things, no reality at all? Thus, over against the dogma of the Realists, *Universalia sunt realia*, the Nominalists set up theirs, *Universalia sunt nomina*.

The vital importance of this controversy, from the mediæval point of view, now comes plainly into sight. If Realism can hold its ground, a rational theology is possible. Should Nominalism gain the day, then, since it must be affirmed on the one hand that the theology is

indisputably true, and on the other that the grounds of its truth can never be demonstrated by the reason, the only possible solution must be, a distinction drawn between that which is true by reason and that which is true to faith. There emerges the distinction between faith and reason. "*Credo quia impossibile*" must be the maxim of the good Churchman. And, if this point be once reached, Scholasticism itself, which is nothing unless it be a rational theology, must lose its *raison d'être*, and cease to exist.

The turns and windings of this long controversy, as it proceeded, are instructive enough, but can here be only very briefly noted.

Platonic and Aristotelian Realism.

Realism itself has two forms, the Platonic and the Aristotelian. The reality of species may subsist independently of individual things, therefore before them, and so be *ante rem;* or it may subsist in the individual things as their indwelling and operative force, and so be *in re.* The first of these forms is borrowed from the Platonic doctrine of ideas; the second from the Aristotelian of Entelecheia.* Of these two forms, the Platonic was prevalent in the earlier stages of the controversy, but gradually gave place to the second: for which circumstance two reasons may be assigned. The second view is obviously that which comes nearest to the tenet of the Nominalists, and is least obnoxious to their most formidable assaults; so that the stress of controversy may naturally have driven Realism behind this rampart. Another reason is that, in the earlier period of the controversy,

* Ante, p. 16.

the more important writings of Aristotle,—those of his writings, indeed, in which the doctrines of capacity and energy, and the Entelecheia are set forth,—were not known to the combatants, nor to the western world generally.

It was in the twelfth century that Aristotle's Analytica was first introduced to Western Europe; not till the thirteenth that his Metaphysics, Psychology, and Physics were made known.* These writings were for a time viewed with a suspicious eye by the Church. In the beginning of the thirteenth century the reading of them was at first forbidden, then hesitatingly allowed, first to artists, finally also to theologians. This suspicion presently gave place to an almost idolatrous veneration. The study of Aristotle was now rendered obligatory; and, so far as natural knowledge was concerned, ecclesiastical opinion went so far as to proclaim the Stagyrite "*praecursor Christi in rebus naturalibus, ut Johannes Baptista in rebus divinis.*"† The critical study of an author,—that is to say, the habit of regarding him as a man no less liable to error perhaps than his reader, and whose arguments are to be weighed and watched by his reader as a juryman weighs and watches the arguments of counsel, appears to have been a thing utterly unknown to those times.

A rough partition of the controversy gives three ground-forms or directions, which correspond respectively with the three centuries during which scholasticism retained its ascendancy; the Platonic realism, as dominant in the twelfth century, Aristotelian realism as dominant in the thirteenth, Nominalism as dominant in the

* 1 Fisch. Hist. Phil., pp. 66, 67. † Ib. 74.

fourteenth.* Of these, the thirteenth century, says Fischer, is the great age of Scholasticism.†

Aquinas.

Greatest among the schoolmen is Thomás Aquinas, the chief of the thirteenth century Aristotelian Realists. His system is described by Fischer in a way which at the same time explains the ascendancy that Aristotle had now acquired over the minds of Churchmen. Augustine had set forth the Kingdom of Grace: what was needed, in order to give to the Theology of Augustine that strength which comes from absolute completeness, was the conception of a kingdom of Nature, such as should fit into, harmonize with, and be subordinate to, this Kingdom of Grace, in such a manner, that the two together should compose one all-embracing system of the universe. Thus the theology of that time needed, as its complement, what the Germans call a Nature-philosophy, —that is, a comprehensive *à priori* or hypothetical conception of nature, such as shall serve as the framework into which this and that particular piece of *à posteriori* or empirical knowledge, as reached by observation and experiment, may without disturbance be fitted in its appropriate place. This need for an *à priori* Nature-philosophy is one which, at some stage or other in the pursuit of natural science, is sure to make itself felt. Such a want is felt in England at the present day; whence the popularity of physico-philosophical speculations like those of Darwin, Tyndall, and Huxley. Such a want may be felt, as it was felt in the age of Aquinas, at a period in which the stock of observed facts and

* Fisch. Hist. Phil., p. 73. † Ib. 75.

experiments concerning nature is too meagre for a philosophy of that kind to be constructed on a permanent basis. The schoolmen had no such contemporaneous wealth of exact knowledge concerning the facts of nature as was requisite for the purpose: they fell back, therefore, upon the collections and speculations of Aristotle.

The great work of Aquinas consists of a systematic Nature-philosophy, thus constructed, culminating in, and subordinated to, the systematic theology of the Catholic Church. The last ground and purpose of Nature is laid in God, the Absolute, or Absolutely-perfect Being. Nature itself is conceived as a graduated series of corporeal and living forms, dependent on the Divine purpose, having their motive force in that purpose, and in it growing each to its own perfection. This kingdom of Nature forms as it were the ante-chamber to the Kingdom of Grace: so that in Nature we have the adaptation, the preparation, the purpose laid, for that great system, of which the Church's ordinances constitute the crown and completion. Thus in the exposition of Aquinas nature appears as a graduated series laid by way of preparation for the Church: in the natural life of man is brought to its summit the graduated series of things corporeal; in the ordinances of the Church, and pre-eminently in the Sacraments, is brought to its summit the natural life of man. This is the Aristotelian conception of Development, raised to its climax in the sacramental system. As aptitude is related to completion, as means are related to their end, so, according to Aquinas, is the natural ordering of the universe related to the ecclesiastical, so, matter to the Sacraments. The system is throughout ecclesiastical and supranaturalistic, and hence adapted to the spirit of the age; but it has taken up and absorbed the

nature-philosophy of the age also, and thus has rendered its theology more comprehensive and world-embracing than before. In this way did Aquinas obtain and deserve his epithet of *Doctor Universalis*.*

Scotus.

The next stage in the scholastic controversy is marked by a name almost equally celebrated, the opponent of Aquinas, Duns Scotus.

The point at which the strife between these two great reasoners begins is the question concerning the determination of the will,—not the will of man, but the will of God. In the creation of the Universe, is the will of God to create absolutely determined, or is it free? Aquinas affirms, as the whole character of his system obliged him to affirm, that it is absolutely determined. In the connectedness with which his exposition had linked together the facts of ordinary life and the highest sacramental mysteries, so that all together furnish the only possible explanation of human if not of all existence, Aquinas finds himself in a manner constrained to assert that this world is the best-ordered world that could be; is that which God in His infinite wisdom had selected out of all possible worlds; consequently, that in the creation of this world the will of God was absolutely determined by His divine insight: that, in short, a perfect Being could not have done otherwise than create this world, such as it is. Thus the system of Aquinas is completely deterministic.

If so, retorts Scotus, everything which has been created is good. There is no such thing as evil. There is then no such thing as morality. God's action being

1 Fisch. Hist. Phil., pp. 74-76.

thus determinate and necessary, He ceases to be an independent agent. The world participates in the Divine necessity and indeed in the Divine nature, both being alike instruments of necessity. Pantheism is the necessary sequel. Recoiling from such conclusions, Scotus himself sets forth a theory of the world on the opposite, that is, the indeterminate basis; and he claims to establish, not merely that this basis is equally well adapted to the facts of the case, but also that on this basis the authority of the Church may even more effectually be sustained. God acts, says Scotus, of absolute free-will. He might just as well have abstained from creating, or created a world totally unlike this. The world is thus merely accidental: having been created, it can only have its end and purpose in God, *i.e.*, outside itself: its direction cannot naturally or of itself go towards this end; it is only the will of man, itself free, that can apprehend that end, and this only through an alteration of its nature through Divine Grace,—an alteration which presupposes freedom of the will, that is, an indeterminate will.

Here is precisely the point of transition from the Realistic way of thinking to that of the Nominalists. Scotus, as it were in spite of himself, and constrained by his own logic to desert his own starting-point, thus proclaims the individuality of the will, and so the individuality of men. He goes further. If the world is accidental, so likewise is the divine revelation of the world's redemption accidental, in the sense that it is not such as could have been discovered by reason; and thus it becomes an object not of reason but of faith. Here again Scotus paves the way for that distinction between

faith and reason which was soon afterwards drawn more sharply by the Nominalists.*

Occam.

And so we come to Nominalism itself. Occam, the scholar of Duns Scotus, becomes the powerful and in result triumphant vindicator of that side in the controversy. His argument, simple and apparently conclusive, is this: "The universal is in several things at once; the universal, then, is no Thing, but a mere notion constructed by ourselves and symbolized by a name. The universal is not real, but rational. The real is the singular or individual." Since now all natural knowledge takes place by means of notions and tokens (terms), such knowledge can never give us any object that is at once real and universal. But such objects are to be believed in. Knowing and believing, then, are two distinct and different mental processes, having different domains. The fact of the divine revelation, deposited with the Church, is to be believed with submission. All rationalizing concerning it is to be dismissed as futile. The realm of faith is to be isolated from the realm of reason. Let philosophy pursue its own path as it will; but let it no longer presume to be the interpreter and handmaid of theology.

Not Occam, but the world, drew the corollary. Let Scholasticism, then, at least as a living force, cease to exist. It may linger on in the schools, for a season, as dead opinions, which in their time have gathered round them an organization and a great machinery, will linger;

* Fisch. Hist. Phil. pp. 76-78.

but the active spirit which makes of thought a ruler and a power has gone from it, and for ever.*

This barren and mischievous after-life, the mere obstruction of true growth, was all that remained of Scholasticism at the time when René Descartes became a student of it.

§ 5. The Renaissance. (From the Schoolmen to Descartes.)

Between Occam and Descartes, however, lies a period of internal revolution, perhaps the most thorough which the world, at any rate since the Christian era, has gone through in the same space of time,—a period, the problems of which evolve themselves with a bewildering rapidity, and also, as is usual in revolutions, with a no less bewildering incompleteness of development.

The revolution was not political. On the contrary, during this period, the monarchies of Europe were becoming consolidated, and the political relations of the masses to their rulers, and of one country in Europe to another, were more stable than they had ever yet been since the fall of the old Roman empire. The revolution was internal, partly social, partly intellectual.

Socially, that which I have termed a revolution consisted in the creation or great development of an educated lay middle class. To this, various causes conspired: the transfer of wealth from the barons and feudal lords to traders, consequent on the Crusades; the growth of maritime commerce and manufacture, and the indirect stimulus to agriculture, consequent on or

* 1 Fisch. Hist. Phil. pp. 78-80.

parallel with the opening out of the gold regions of Mexico and Peru; a growth very much favoured by the comparative peace and settled government which mark this period. Froude, in the introduction to his "History of the Tudors," gives a striking picture of the prosperous condition of England in the times which followed the Wars of the Roses,—a country where the conditions of material well-being were fairly diffused amongst all classes, where if anywhere content was possible, where there was no great hurry or excitement, but men lived in a leisurely way, finding time for sports and amusements, and, if so disposed, for intellectual culture. The same causes, though probably not elsewhere to the same extent, operated throughout Europe.

Intellectually, the materials existed for a complete transformation of men's opinions, on those matters, to begin with, which strike the imaginations even of the most sluggish and pre-occupied. The known world was growing larger: no longer could it be believed to consist only of the countries washed by the Mediterranean Sea and its tributaries, with a ring of outer barbarians. The Cape of Good Hope was doubled, and India and China visited. A new world was found in America: marvellous Eldoradoes, the site of a strange civilization, and the burial-ground of civilizations extinct, inflamed the curiosity of all and the enterprize of the more daring. The poor and the discontented at home, if only capable men, might, they had reason to believe, gratify the wildest visions of their ambition on the easy condition of a sea voyage. Not all at once, but by degrees, and in many different ways, the old usages and fixed beliefs of society were broken up; fresh, vague, and unbounded hopes were kindled; the world was opening out new careers to

all who had spirit and energy to embrace them. Thus it was a period in many respects analogous to that age of steam and machinery, of rapid growth, of new possibilities for every ardent and vigorous youth, in which it has been our privilege to live. No wonder if there was the same unsettling of old traditions; or perhaps a greater, since the old traditions then were so much more cramping than ours are.

The place of Europe in the globe was not more transformed than was the place of the globe in the universe. Kepler, Copernicus, Galileo, shifting, in men's opinions, the centre of motion from the earth to the sun, were the greatest of revolutionists. The Church of that day acted on a wise instinct in endeavouring to silence Galileo. Truths so subversive of established opinions carry about them a dangerous propagandism; the radical reformer of astronomy sets a bad example for politics and theology.

A third transforming element, perhaps as powerful as any, was less widely diffused. To this period belongs the acquirement by Western Europe, as a consequence of the fall of Constantinople, of the language and literature of ancient Greece. This learning was not, as all learning had been hitherto, confined to the clergy. Classical studies were taken up by laymen with the eagerness of discoverers. The Church, says Fischer, had hitherto guarded its members against such secular knowledge as might disturb their faith, either as showing the heathen world in too fair a light, or as supplying a pre-Christian origin to principles of morals or philosophy which it was better to attach exclusively to Christianity. Heretofore the Church had admitted so much only of light, concerning the history and development of mankind, not as any scientific theory dictated, but as suited its purpose.

"The revival of classical studies breaks in upon these church-imposed limitations; antiquity is discovered afresh; the feeling of affinity with the spirit of its art and philosophy streams in upon the Western World, renewing its youth. In admiring and imitating these works of classic heathendom men feel themselves no longer exclusively Christian, but in a broader sense human. The mode of thought becomes, like the studies, humanistic."* Such were the materials for change thrown into society by the mariner's compass, the telescope, the printing-press, and the dispersion of the literary treasures of Constantinople.

Let us now come more closely to philosophy, and consider to what account these new materials were turned in the field of speculative thought.

Three distinct successive waves of thought are noted by Fischer, as dominating this transitive period between the scholastic age and the new movement set on foot by Socrates.

Modern Neo-Platonism.

The first wave is set in motion by the neo-Platonism of Pletho, Bessarion, and Ficinus, taught in the Platonic Academy founded in Florence by the Medici. According to Ficinus, says Fischer, the Platonic philosophy stands for the sum total of all wisdom, the key to Christianity, the instrument by which Christianity is to be spiritualized and reinvigorated.† This philosophy is "the great mystery, in which all the wisdom of the past is gathered into one, with which all the true wisdom of later years is interpenetrated." From such idolatry of Plato this school passes on to a sort of pantheistic adora-

* Fisch. Hist. Phil. p. 100. † Ib. p. 85.

tion of nature,—of nature, not as the object of methodical research, but as a riddle, of which the solution has to be discovered; as the locked book that cannot be unclasped by mortal sense, for unclosing which there must be found a key, no less mysterious than the book itself. And so we come to natural magic, to the high learning of the stars and their fate-boding conjunctions, to alchemy, and the quest of the philosopher's stone. In all which a sense of the ridiculous is in danger of making us omit the mingled compassion and veneration which might more fitly be rendered to the spectacle of great powers wasted over noble but misdirected efforts. What lies underneath all these extravagances, and is the cause of them, is a dim conviction that there is a way by which the intelligence of man can gain a mastery over the hidden forces of nature, and compel them to be its ministers. The thought itself was true, but the right method had not yet been found.

Italian Nature-Philosophy.

The second wave of thought is the Italian Nature-Philosophy, represented by Patricius, Giordano Bruno, and Thomas Campanella. The basis of this system, if anything so merely inchoate can be called a system, is likewise pantheistic. This is the extreme of the reaction against the schoolmen. Nature is to be explained out of herself; no longer theologically, but, as was supposed, philosophically. The universe was a somewhat that contained its purpose within itself. There was a universal inner force, a world-soul, the manifestation of which as the world such as it was and was to become. At the heart of this universe was a force working after a purpose. Thus there were three principles; matter, mind or soul,

and spirit: the first explains the corporeal attributes of nature, the second its movements, the third its forms. Nevertheless all three constituted one single nature, that moves and forms itself. Nature was an unceasing metamorphosis, — a process of self-unfolding. The unity of these three principles constituted the absolute: in other words, the infinite Godhead. Nature is no longer this central earth with its wandering sun and stars, but a universe of which this earth is but one little speck.

This philosophy made one bold stride forward, which brings it into relations with modern thought. It went on to ask the question: How do we know all this? Things without us are cognizable only through the senses, which are of human and so of limited nature. We ourselves can only be known to ourselves through introspection and reflection. There are, then, two sources of knowledge, outer and inner, sensation and reflection. Of these the second is immediately certain. I think my self; I apprehend immediately that I exist, that I am a being endowed with power, with apprehension, with volition. Nature is analogous to my being: it must be in a lower potency that which I myself am in a higher. God, after the same analogy, must be, in the highest potency, that which I and nature are in lower.

Here, says Fischer, in a crude and undeveloped form, are the germs of Locke and of Descartes, and even of Leibnitz. They are, to use the phrase of Leibnitz, actually *gros de l'avenir*.

The Reformation.

Then comes the third wave, far mightier than the other two, and sweeps both into oblivion. The third wave is the Reformation.

It may be thought strange that the Reformation should be classed among movements of opinion in philosophy. It is so only in one aspect. Before a man can so completely change his point of view as to abandon that which has heretofore been to him the ultimate standard of truth, and adopt another, problems of thought which run deep into philosophy must necessarily emerge for his consideration. Before a nation, before half Europe, could do so, those problems, one should suppose, must have been long and widely pondered and discussed. The change of view involved in the adoption of the Reformed Religion was not less than here stated: for it is no exaggeration to say that the question, at any rate as popularly understood, concerned the ultimate standard and test of truth: that standard being, on one doctrine, the living voice of the concrete organized holy Catholic Church, and on the other, holy Scripture as interpreted by the individual conscience of every man, under the influence and guidance of the Holy Spirit. No fusion of the two, no compromise, was then regarded as possible: for it was alleged by the Reformers,—and familiar historical and political facts were there to support the allegation,—that the concrete organized Church could not be the ultimate standard of truth, seeing it had sanctioned and taken part in practices sternly condemned by the consciences of men who were themselves conscious, as they believed, of the influence and guidance of the Holy Spirit.

But, although the Reformation logically required an underlying philosophy, it was a movement that passed too rapidly into the sphere of absorbing and passionate action for the philosophy to have either leisure to formulate itself, or any chance of a hearing. The Reformation

had to be fought out with sword and arquebuss, by the constancy of martyrs, by the stubbornness of enthusiastic multitudes. Its doctrines had to be set forth in a plain clear way, for the use of the illiterate many. For the dogmatism of the Church a substitute had to be provided,—a formula as short and ready to hand on any sudden controversial need. We must have a supreme, last, infallible (for what fallible can be last?) standard of truth: take away the Church, and what have we? Luther gave the short answer: We have the Bible and the Spirit. Which of these two formulas—Rome's or Luther's—was the true one? That, to be answered popularly, was a question to be answered by an appeal to authority, or an investigation of matters of fact,—at any rate by researches which did not carry men into the regions of philosophy.*

Thus it came about that a very scanty glimmer of philosophy sufficed for all the controversies set on foot by the Reformation. The influence of this great movement on the advancement of our science was at first unfavour-

* Have I, in writing this, quite done justice to the Reformation? Perhaps not. It ought to have been added that Luther, in bringing back men's thoughts to the Augustinian or rather Pauline tenet of salvation through a new birth, the result of faith, given by divine grace, opened up deep problems of philosophy, such for example as the relation of divine grace to free-will,—problems which directly awakened, or ought to have awakened, philosophical speculation. It is difficult to present unmixed truth in a concise outline. It still, I think, remains true that though these problems were directly suggested, they were not, in the heat of the Reformation contest, thought out in a philosophical spirit. The appeal was by both sides carried direct to authority: to the authority of the Church was opposed the authority of the Bible; and, speaking broadly, the only question debated was, to which of the two authorities ought unconditional submission to be rendered.

able, by drawing away the public attention from abstract speculation, but afterwards strongly, though indirectly, favourable, by the emancipation of human thought from its fetters, and by the habit of bold, searching, independent enquiry which this great controversy engendered.

§ 6. The two modern Philosophies.

We stand now on the threshold of modern philosophy. From the point we have reached, we should be able to cast a glance along that line of speculation which was entered by Descartes, and traced further by Leibnitz and Kant,—a line entirely different from that which reaches from Bacon to Mill. We are as it were on a high table-land where we can mark the fountain-heads of two great rivers that will part company and widen their distance like the Rhine and the Rhone.

"There are," says Kant, "two stems of human knowledge, which spring perhaps from a common root, but if so, a root unknown to us, namely, sensation and the understanding, by the first of which objects are *given*, and by the second are *thought*."*

Here is the problem of philosophy, which stands before Bacon and Descartes. True knowledge must be one thing, a whole: it must spring then at last from one supreme faculty of knowing. Which is that supreme and ultimate faculty, the test and last arbiter of truth? Is it perception,—the faculty which passively apprehends sensations whether inner or outer, *i.e.* feelings as well as sights and sounds,—or is it the understanding, the faculty for pure thought? Perception may be termed at least comparatively a passive receptivity; thought, framing

* Pure Reason, p. 15. The references to Kant are to the first edition.

notions or conceptions (*Begriffe*), an active function. Each of these two faculties is given in the constitution of man's nature, and therefore has an original right and validity above question. But which shall we regard as supreme? Here arises matter of controversy, which has split philosophy into two warring sects.

That which we may call the English doctrine,—the doctrine gradually evolved by Bacon, Locke, Hume, and the elder Mill,—regards the functions of the understanding, in binding together and establishing relations between the impressions gathered in by perception through the senses, as altogether subordinate and ancillary. Knowledge, it is argued, must at last be conditioned by its materials; and all the materials of our knowledge come in to us originally through the senses. It may be allowed that, when we speak of the senses, we are not to exclude that inner sense, if it may be so called, which directly exhibits to us states of our own being, as pleasure, pain, anger, love,—everything, in a word, which is included in the term "the feelings." These are apprehended by a sort of internal perception. But, with this extension of the phrase, all we know or can know is reduceable at last to our perceptions. Thus knowledge is merely "formulated perception"; and, as nothing can be added by the mere process of formulating, we may sum up metaphysics in the equation, knowledge = perception "*Nihil est in intellectu quod non ante fuerit in sensu.*" This is the Sensationist or Empirical school.

The other, which, though French in origin, has been so appropriated by the Germans that it must now be called the German doctrine, begins, at any rate, by subordinating perception to thought. Antecedent to the

materials for knowledge which come in through the perception, is that formative principle within the mind, which from these materials, and likewise from the introspection and analysis of this principle itself, evolves knowledge. In a certain sense, the materials furnished by perceptions may constitute a *conditio sine quâ non* of knowledge; but the materials are not the knowledge, any more than a heap of bricks and timber is a house. The innate faculty of the mind itself is in a more proper sense the constituent of knowledge. It is not true that there is nothing in the intellect which was not first in the senses,—there is likewise the intellect itself. If the faculty of reason and all that makes up the human intelligence as it exists in the way of preformation, be studied in its purity,—that is to say by disengaging and setting apart, as an external accretion, all that is empirical,—we shall then have before us objects of investigation which, as together constituting the pure native laws of thought, must furnish absolute certainties, no less demonstrable than the propositions of Euclid. Such is the idea which the German philosophy sets out with. Its first phase is Rationalistic or Dogmatic.

I hope, if I live, to set forth the manner in which the attempt was subsequently made, by Kant and his disciples, to harmonize these two conflicting because one-sided lines of thought. At present, I have only to deal with the earlier stages of German speculation, the true founder of which was a Frenchman, René Descartes.

MEMOIR OF DESCARTES.

§ 1. La Fléche.

René Descartes, Seigneur de Perron, was born at La Haye, in Touraine, March 30, 1596. His mother was Jeanne Brochard, daughter of a Lieutenant-General of Poitiers. The family of Descartes, anciently spelt Des Quartes, was one of the oldest in Touraine. There had been in it an Archbishop of Tours, and "several brave gentlemen," we are told, "who had served with distinction." His father, Joachim, whether from taste or to better his fortune, adopted the profession of the law, and obtained the honourable and independent judicial appointment of Counsellor of the Parliament of Brittany. This led to the removal of the family from La Haye to Rennes, "where," says his biographer, "his descendants have always resided. There are six of them who have occupied with distinction posts in the Parliament of Brittany."*

René was the third son. His whole career in life was one long outbreak against the traditions of his family,

* These, and other details of Descartes' life, are for the most part taken from the Notes to Thomas's "Eloge of Descartes," first published about 1765, and reprinted by Victor Cousin in his edition of the works of Descartes, 1825. These, with the autobiographical matter contained in the "Discours de la Méthode," and the Letters of and to Descartes, which occupy some volumes of this edition, have been my principal materials.

and the result was a complete and painful estrangement from that family, except from his father, who tenderly loved and was loved by him to the last. But the family had been, apparently, homeseeking country gentlemen, averse to letters, only leaving their farms to serve the king in his armies or in his courts of law, pious Catholics, tories of the old school; and the wandering, questioning, unsociable, scribbling, ways of this sickly younger brother were from the heart offensive to all his kith and kin. The celebrity he acquired only made the matter more distasteful to them.

René's mother died a few days after his birth, of a chest disease, brought on, as her son tells us, by some vexations (*déplaisirs*). "I inherited from her," he says, "a dry cough and a pale complexion, which I retained to the age of more than twenty, and which caused all the doctors who saw me before that time to condemn me to die young."* Thanks to the tender cares of a nurse, to whom René always showed himself gratefully attached, the prognostic was disappointed; but throughout his life René was delicate of health, and of necessity something of a valetudinarian.

Concerning his childhood it is recorded that though kept back as much as possible from study, on account of his feeble health, his precocious reflectiveness was such that he acquired from his father the jesting title of "our philosopher."†

At the age of eight he was sent to the Jesuit school or college of La Fléche, in Anjou, then recently founded by

* Letter to Princess Elizabeth, 9 Œuvr. p. 203.

† 1 Œuvr. p. 82. "He used to ask the causes and effects of everything," it is added, "and would not be put off with unmeaning answers."

King Henry IV., with the intention of giving an especially high education to the sons of the nobility, and perhaps also of adding to the edict of Nantes a further proof, in this mark of favour to the Order of Jesus, of the sincerity of his conversion to the true faith. Besides a liberal endowment and noble appointments, Henry paid a remarkable compliment to La Fléche, by directing in his will that his heart should be buried there,—an injunction which was carried out with much pomp six years later, the young Descartes being one of twenty-four gentlemen of rank who walked in the funeral procession.

René speaks most highly of this school, took a very high position there, and after eight years and a-half of diligent study, left it with the fixed resolution to abandon study and books for ever, as a pure waste of time. His reasons for this remarkable resolution shall be given in his own words:—

"I was brought up to letters," he says, "from my infancy; and, since I had been assured that by their means I could acquire a clear and certain knowledge of all that is useful in life, I had an extreme desire to learn them. But as soon as I had completed that course of study, at the end of which one is usually received into the rank of the learned, I entirely changed my opinion. For, I found myself embarrassed by so many doubts and errors that I thought I had gained nothing else from trying to instruct myself than to have more and more discovered my ignorance. And yet I was in one of the most celebrated schools of Europe, one where I thought there ought to be men of learning, if such there are in any part of the world. I had learnt all that the others learnt there; and even, not content with the sciences they taught us, I had run through every book, treating of such matters as are esteemed the most curious and rare, that I could lay hands on. I knew, moreover, the opinion which the others held of me, and did not see that I was deemed inferior to my fellow-pupils, though amongst these there were some destined to fill the places of our masters. Lastly,

our own times appeared to me as flourishing and fertile of good wits as any that had gone before. All which made me take the liberty to judge from myself of all the others, and to think that there was in the world no such learning as I had been led to hope for."*

"I never failed, however, highly to value the exercises we learn in schools. I knew that the languages we learn there are necessary for understanding the ancient books; that the pleasantness of the fables keeps the mind awake; that the memorable actions of history elevate it, and if read with discretion these aid to form the judgment; that the reading of all good books is like a conversation with the most esteemed persons of past ages, their authors, and even a prepared conversation, in which they only lay before us the best of their thoughts; that eloquence has a force and beauties beyond compare; that poetry has delicacies and a sweetness most enchanting; that the mathematics are inventions very subtle, and such as greatly serve as well to gratify the curious as to facilitate all arts and economize men's labour; that those writings which treat of morals contain many instructions and many exhortations to virtue that are very useful; that theology teaches us the way to heaven; that philosophy puts us in the way of speaking plausibly on all subjects, and making ourselves admired by the less learned; that jurisprudence, medicine, and the other sciences, bring honours and wealth to those who cultivate them; and in fine, that it is good to have examined them all, even the most superstitious and most false, in order to know their just value and beware of being imposed on by them.

"But I thought I had now given time enough to languages, and even to the reading of the ancient books, and their histories, and their fables. For, to converse with those of other ages is very much like travelling. It is good to know something about the manners of divers nations, in order to form a more sober judgment of our own, and that we may not deem whatever runs contrary to our fashions to be ridiculous and against reason, as those are apt to do who have seen nothing. But, when one spends too much time in travelling, one may become a stranger in one's own land; and, when one is too curious over the things that were practised in centuries past, one is apt to remain ignorant of what is practised

* Disc. de la Méthode, 1 Œuvr. pp. 125-126.

in the present. I reflected too that the fables lead us to imagine many occurrences as possible which by no means are so; and that even the most faithful histories, if they do not change or amplify the value of matters in order to make them better worth reading, at any rate almost always omit the baser and less memorable circumstances; whence it comes about that the remainder does not appear such as it truly was, and those who regulate their manners by the examples they draw from what they read are liable to fall into the extravagances of our romance-heroes, and conceive projects beyond their own powers.

"I greatly esteemed eloquence, and was in love with poetry; but I reflected that both of them are rather gifts of nature than the fruits of study. Those who have the force of reasoning strongest, and who best digest their thoughts so as to render them clear and intelligible, will always make the best persuaders, though they talk low-Breton, and never learnt a rule of rhetoric. And those who have the pleasantest fancies, and can utter them with the most of ornament and grace, cannot fail to be the best poets, though the art of poetry be unknown to them.

"I took pleasure, above all, in mathematics, because of the certainty and the absoluteness (*évidence*) of its reasons; but I had not yet found out its true use; and, thinking that it served only for the mechanical arts, was astonished that, its foundations being so firm and solid, nothing had ever been built on them that was more exalted. While on the contrary I compared the writings of those old pagans who treat of morals to palaces exceedingly superb and magnificent that are built on sand and rubble: they set virtue very high, and paint it estimable beyond aught else in the world; but do not sufficiently teach us what it is, and often what they call by that fair name is but an insensibility, or a pride, or a despair, or a parricide.

"I revered our theology, and aspired as much as any one to attain to heaven: but, having learnt, as a perfectly sure thing, that the way to it lies no less open to the ignorant than the learned, and that those revealed truths which lead to it are above our understanding, I should not have dared to subject them to the weakness of my reasonings; and I thought that, to undertake to examine them, and to succeed, would require some extraordinary aid from heaven, and one ought to be more than man.

"Concerning philosophy I will say nothing, except that, seeing it had been cultivated by the most powerful minds that had lived for many centuries, and that nevertheless there was not yet to be found in it one single thing which is not disputed, and therefore open to doubt, I had not the presumption to hope that I should succeed better than others; and, considering how many different opinions there are, touching one and the same matter, all of which are maintained by learned persons, while it was impossible that more than one of them could be true, I regarded as little better than false everything that was merely probable.

"Then for the other sciences, since they all borrow their principles from philosophy, I judged that nothing solid could have been built on foundations so far from secure. And neither the honour nor the gains which they held out were sufficient to tempt me to acquire them. For, thank heaven, I did not find myself in a position that obliged me to make a business of learning for the improvement of my fortune; and, though I make no profession of despising glory like a cynic, I really do care very little for such distinction as I could only hope to acquire under false pretences. And finally, as for the evil sciences (*les mauvaises doctrines*), I thought I by this time knew well enough what they were worth, to run no risk of being imposed upon either by the promises of an alchemist, or the predictions of an astrologer, or the impostures of a magician, or the tricks or boastings of any of those persons who make it their profession to know more than they do know.

"For these reasons," he concludes, "as soon as my age allowed me to quit the subjection of my preceptors, I entirely abandoned the study of letters, and resolved to seek no other science than I could find within myself or in the great book of the world."*

§ 2. *Paris.*

When René, at the age of sixteen and a-half, finally left La Fléche and came home to Rennes, and had as well as he could explained to his father his resolution to abandon study, and its motives, it requires no very lively

* Discours de la Méthode, 1 Œuvr. pp. 126-130.

imagination to conceive the perplexity and most likely the vexation of the learned Parliament-Councillor. One can also no doubt feel a little for René himself. He had to make out a justification of some sort, and it is not likely that his arguments were so well arranged, or brought out with the same clearness, when laid before his father at their conversation in the old gentleman's study, as when reduced to writing, some years afterwards, calmly and at his leisure. It may well be doubted whether the grounds of his decision were at that time such as he was himself distinctly conscious of. Be this as it may, however clearly he may have seen, and however calmly and completely he may have been able to set forth the motives which induced this singular resolution, what is quite certain is that they must have appeared to the old gentleman incomprehensible, and perhaps simply nonsensical.

Here was a youth who had to determine upon a career in life. The choice, for a young gentleman hampered by noble rank, was somewhat limited. René had too much talent and energy to live idle at home on his elder brother's estates, like Orlando in *As you like it*. Certainly his mother had left him a little independence of his own, but he could not vegetate on that. The Descartes' had been used to serve the public; their family history proves that they set their pride in, and perhaps owed their position to, employments in the church, or the army, or the law. René evidently had no calling for the church. As for the law, it seems pretty certain, from an incident I shall presently have to relate, that it was at one time or other the father's wish that René should adopt that profession, with the view of eventually purchasing a judgeship. The high function of judge, at that time as at the present day in France, was not the prize of success at the

bar, but a post attained to by a distinct mode of training, and, at that time, obtainable by purchase, apparently on much the same terms as captaincies and colonel's rank in the English army were until recently obtainable; the theory being that fit men, tired of service, might, for a consideration, hand over their places to other fit men. The fitness, and the price offered, might occasionally be in inverse ratios to one another, but some at least pretence to fitness, and therefore some sort of preliminary training there must have been. But Descartes at that time cared as little for the law as for divinity, regarded as a serious occupation.

Here then was the provoking absurdity, that a youth of great promise intellectually, from his childhood fond of letters, after a career at school that might fairly be termed distinguished, having hitherto shown no indisposition to industry, but very much the contrary, should now, when the critical time was come for determining his career in life, resolve, with a calm and reasoning obstinacy, to throw all his chances away for the sake of a mere incomprehensible crotchet, born of a conceit that he was wiser than his preceptors, even wiser than the age he lived in! All that was left was to make him a soldier, and his sickly constitution was not properly fit even for that. However, a soldier he was ready enough to be: for he wished to see the world, and to study human life and character under various phases, and he thought the wandering and adventurous career of a soldier would serve his purpose very well.

We do not know how soon the resolution to place him in the army was finally taken. The youth remained two years at home, with no special occupation beyond that of strengthening his frame by practising fencing and riding.

He learnt also a little music, a taste for which, especially for the science of it, he retained through life. Another of his habits, first acquired at school, and persevered in to the last, was that of lying awake in bed many hours of the morning. The indulgence of rising late was granted him at school on account of his delicate health; and he then habitually used it for purposes of meditation and of preparing the work of the day. He found these quiet seasons favourable to study, and kept up the habit.

At the end of these two inactive years, René was suddenly plunged by his father into the dissipation of Paris. This, we may presume, was regarded as a part of that education of the manners, a necessary preliminary to his entering the army. He was sent, in 1614, in his nineteenth year, with a suitable retinue of servants, to Paris; where, we are told, he was for some time completely absorbed in the whirl of social gaiety, to which he was introduced with great advantages. His doubts and problems were forgotten in the society of young people of his own age, and especially at the gaming-table, which, we are told, he frequented with ardour. The change, from the dreary inaction of Rennes, was too sudden and complete not to have carried him away for a time.

In Paris he met with an old schoolfellow, Père Mersenne, at that time a Franciscan monk in a Minorite convent of that city. Mersenne was eight years older than Descartes, and, as he had left La Fléche the same year that René entered, their previous acquaintance must have been but slight. The friendship they now formed, however, lasted for life, and was, for Descartes at least, of inestimable advantage. We shall see that in later years, when Descartes lived in seclusion in Holland, Mersenne

became for him the medium of communication with the learned world in Paris, sent him books, compared ideas on all subjects, made arrangements for the publication of his several works, and became indeed his factotum. The correspondence leads us to form a high opinion of Mersenne, as a grave, high-minded, intellectual person, always anxious to inform himself of whatever was going on in the learned world. There is a tone of respect mingled with affection running through all Descartes' letters to him. During this period Descartes likewise made the acquaintance of Claude Mydorge, an eminent mathematician, and several other learned persons. Unfortunately for Descartes, Mersenne was obliged to leave Paris, about a year after René came there, having been appointed to a professorship in philosophy at Nevers.

There were at this period, evidently, in the mind of Descartes, two impulses, pulling him in opposite directions. The one was a discontent with and aversion to all book-learning, from a sense of its inadequacy; the other, a keen appetite for intellectual occupation, which there was nothing except this same book-learning to gratify. When the first novelty was over, gay society and the gaming-table grew intolerably insipid. In defiance of his theories, the impulse to satisfy the craving of his intellect for employment was irresistible. To go to his father, acknowledge his mistake, abandon arms and take to books again, was out of the question. Perhaps his pride stood in the way: perhaps he had detected a certain shade of contempt in the facility with which the old judge had let him thus far take his own way in adopting a profession. Possibly a second change would not be acceded to so readily, or not without an augmentation of gentle contempt. It is also possible he was half

suspicious that the impulse he was now yielding to would not be lasting. Let the reason be what it may, there was not at this time a full confidence between René and his only too indulgent father. The mother, who might have served as a medium of such confidence, was not there. René took a step which seems out of character with the rest of his life,—except indeed in the love of solitude it displayed. This youth, barely twenty, mysteriously disappeared. Search was made for him to no purpose. In Paris it was thought he had returned to his relations in Brittany: his relations, however, knew nothing about him. One or two servants only had the secret: possibly they confided it to his father; if so, he connived at it. René was hidden in a small house somewhere in the purlieus of the Faubourg S. Germain. Here he remained, unknown to all his friends, for about two years; absorbed, we are told, in study, principally mathematical. It is remarkable that he himself, in his autobiographical writings or in his letters, nowhere, so far as I am aware of, refers to this strange incident. His secret was discovered by an accidental meeting in the street with a friend, who followed him to his quarters, and insisted on his returning to the society he had quitted. We are told that he returned to it with distaste.

I know that in attempting to construct an intelligible narrative of Descartes' career out of the dry bones of fact that are given to us, there is danger of going very much astray when we begin to speculate. It does seem however as if at this point of his life a judicious friend, to mediate between René and his father,—perhaps also between René and himself,—was greatly wanted. Some one should have pointed out to both that René's distaste for the knowledge offered to him at La Fléche arose from

a belief that it was not genuine knowledge: this implied that genuine knowledge existed somewhere: if so, could it not be searched for? And was not the task of searching for it precisely that work which nature, not to say Providence, had evidently laid upon Descartes? If so, would it not be wise for the father to reverence the son's high vocation, to aid him by putting him in the right way for it, and in case of need even to bend to the apparent circuity or zigzag of his son's course; the son being in chase of truth,—which cannot always be hunted in a straight line, any more than a fox can. However, to return to our facts, there was no such counsellor, or, if there were, he counselled in vain. The course actually taken was to send René to the army.

§ 3. Neuburg.

I shall not spend much time over Descartes' military career. France was then at peace; but many young French gentlemen, military cadets, were in the habit of gratifying their martial ardour, and training their skill, by serving as volunteers in any warfare that might be going on across the borders, without very painful anxiety as to the nature of the cause of quarrel. Thus it befel that René, a strict Catholic, first took service (in May, 1617) under the banners of Maurice of Nassau; that is to say, he abetted a Protestant prince in his war with Spain: and, two years later, passed into the temporary service of the Catholic Emperor Ferdinand, then waging the great war of succession with his Protestant rival, Frederick, the Elector Palatine, our James the First's son-in-law: and this at a period when almost every battle in Europe was, at least professedly, a contest between the Catholic and Protestant causes.

Descartes' soldiering was little more than a name. That he ever fought in a battle, was hurt, or even drew a sword, is not recorded. We know not his military rank. It is said that he once drew his pay, and kept it by him as a curiosity. The camp, for him, as at that time for many other gentlemen of rank, was much what the Inns of Court were in Addison's days,—a pleasant rendezvous, where one might see the best society, find amusement, look on or join the game as one felt inclined, and kill time or be killed as the luck might go. A lively contemporary picture of this camp life is given in the entertaining memoirs of Lord Herbert of Cherbury.

The only anecdote there is of Descartes' campaign in Holland does not smell much of gunpowder. One day, walking down a street in Breda, the young officer's attention was drawn to a placard on the wall, in which a mathematical problem was set forth, with a challenge or invitation to have it solved. The diagram Descartes could make out well enough, but the terms were in Flemish, a language he was not acquainted with. Addressing a bystander, he asked for an interpretation. The other, who happened to be a mathematician of some note, named Beeckman, amused at the question from a young soldier, answered jestingly that he would translate if the other would promise to give a solution. The next day Descartes called on Beeckman with the problem solved, and thus began a long friendship.

It may be noted also that Descartes was present, though it is not stated that he actually fought, at the Battle of Prague,—a battle fatal to the prospects of the Elector Palatine, and that cost him his crown.

In the winter of the year 1619-20 Descartes was in the German town of Neuburg, on the Danube, where he was

quartered for the winter season. In the quiet and solitude of this place, the fermentation of his mind, which doubtless had been going on, more or less painfully, ever since he left La Fléche, came to a crisis. "He felt himself," says Fischer, "at the door of truth, and could not get through." His state at this time is described as one of ecstatic excitement, in which visionary objects assumed the appearance of reality. "His head, fatigued no doubt by solitude or labour, was heated to that degree that he saw phantoms, and heard a voice calling him to the pursuit of truth. He scarce doubted but these dreams came from heaven, and even mingled therewith a sentiment of religion."* He vowed a pilgrimage to Loretto, would the Holy Virgin reveal to him the truth he was in quest of,—a vow which, four years later, was punctually performed.

Now, as the reward of this long dull rumination—this fixing of the inner gaze upon a dark somewhat, the nature of which is unknown, but its existence and importance felt by a sort of foreboding—this painful gestation of a new thought—came, all at once, the birth of it; one idea after another streaming out, rapidly and without effort, so as to complete amongst them that which in its aggregate is a whole, a single thought. This new thought was, that which he himself calls his Method. Its value, for himself and for modern times, may be said to consist in these two momenta of it: 1st. All that has been thought out hitherto, in the way of speculative truth, is as good as useless to us, because it has not been thought out methodically from a secure basis: 2nd. A beginning may now be made, and, by proceeding on a right method, the new science, unlike the old, may be rendered

* Notes to Thomas's Eloge, 1 Œuvr. pp. 87-88.

solid and durable. This, for Descartes personally, was a complete solution of his first doubt—the doubt whether genuine knowledge was possible, and a restoration of him to a state of intellectual activity. No wonder, therefore, that after these days of Neuburg the pilgrimage to Loretto was felt to be due.

This portion of his biography must be given in his own words.

"I was then," he says, "in Germany, whither I had been drawn upon occasion of the war which is not yet ended there; and, as I was returning to the army from the Emperor's coronation, the coming on of winter stopped me in a lodging (*un quartier*), where, not finding any society that interested me, and likewise, by good fortune, not having any cares or passions to trouble me, I spent the whole day shut up alone in a chamber, where I had perfect leisure to entertain myself with my thoughts.

"Amongst these, one of the first that occurred to me was to consider how often we find that there is not so much perfection in works composed of a number of pieces, and made by the hand of several masters, as in those which one alone has laboured at. Thus we see that buildings which a single architect has designed and completed are generally fairer and better arranged than those which several have tried to adapt, making use of old walls that were built for a different purpose. So those old cities which, having originally been mere villages, have by the process of time grown into large towns, are ordinarily so ill laid out, as compared with those regular squares and streets which an engineer traces at his pleasure on a plain, that although, when we regard their buildings each by itself, there may be as much or more of art in them than in those of the latter, yet, to see how they are distributed, here a large one, there a small one, and how they make the streets crooked and unequal, one should say that it is rather mere luck than the will of any men who had the use of reason, that has disposed them thus. And, if we consider that there have, nevertheless, been in all times certain public functionaries whose charge obliged them to have an eye on the buildings of private persons, to make them subserve the ornament of the public, we shall

readily see how difficult it is, in labouring only upon the works of others, to produce things of any great merit. In the same way I imagined that communities which, having formerly been half-savage, and only growing civilized little by little, have made their laws just in proportion as the inconvenience of crimes and quarrels has led them on, will never be so well-governed as those who, from the first times of their gathering themselves together, have observed the constitutions of some wise law-giver. As it is very certain that the state of the true religion, whereof God alone hath made the ordinances, ought to be incomparably better regulated than all others. And, to speak of human things, I believe that if Sparta of old was so thriving, this was not because of the goodness of each of its laws in particular, seeing that many of them were very strange, and even contrary to good manners; but because, having been devised by one man only, they all tended to the same purpose. And so I thought that the sciences we have in books, at least those of which the reasons are merely probable and not demonstrative, being compounded and swelled out little by little of the opinions of many diverse people, are not so approaching to the truth as those simple reasonings which can naturally be made by a man of good sense concerning the matters which come before him. And so I went on to reflect that, since we have all been children before we were men, and were for a long time obliged to be governed by our appetites and our preceptors, which went often contrary the one to the other, and of which neither the one nor the other perhaps always prompted us for the best, it is almost impossible that our judgments should be as pure or as solid as they would have been, if we had had the entire use of our reason from the moment of our birth, and had never been guided by anything else.

"It is true"—he continues—"that we do not find people knocking down all the houses in a town for the mere purpose of reconstructing them in another way and making its streets fairer; but we often see that men do pull down their own houses, to rebuild them, and sometimes are even obliged to do so, when they are in danger of falling of themselves, and their foundations are not very secure. From which example I persuaded myself that, whilst there certainly would be no prospect of an individual's undertaking to reform a state, in changing all from the foundation, and upset-

ting it in order to make it anew; neither yet to new-make the body of sciences, or the order of teaching them established in the schools; yet that, as for all the opinions I had up to that time admitted into my belief, I could not do better than undertake once for all to turn them out, in order to replace them afterwards either by better ones, or, perhaps, by the same after I had adjusted them to the level of reason. And I believed firmly that by this means I should succeed in conducting my life much better than if I only built on old foundations, and supported myself merely on such principles as I had let myself be satisfied with in my youth, without ever having examined if they were true. . . . .

"But, like a man who walks alone, and in the dark, I resolved to go so slowly and to use so much circumspection in all things, that, if I advanced but little, I should take care at least not to fall. Moreover, I did not wish to begin by altogether rejecting any of the opinions which might sometime have slipped into my belief, without being introduced there by my reason, until I had first spent a sufficient time in drawing out the plan of the work I was undertaking, and determining on the true method to arrive at the knowledge of all such things as my mind was capable of.

"I had, when I was young, under the head of philosophy, studied somewhat in logic, and, under that of mathematics, in geometrical analysis and algebra, three arts or sciences which seemed likely to contribute something towards my design. But, on examining them, I observed that, as for logic, its syllogisms and the greater part of its rules serve rather to explain to others what we already know, or even, like the art of Lully, to speak without judgment concerning that which we know not, than for the purpose of learning; and, although it contains, no doubt, many precepts that are very true and very good, yet there always are intermingled with them so many others either hurtful or superfluous, that it is about as easy to separate the one from the other, as to draw out a Diana or a Minerva from a block of marble not yet rough-hewn. Then, as for the ancient method of analysis and the modern algebra, besides that they extend no further than to matters very abstract, and seemingly of no utility, the former is so confined to the consideration of figures, that it cannot exercise the understanding without greatly fatiguing the imagination; while in the latter we are so chained down to certain rules and certain

cyphers, that they have made of it an art, confused and obscure, that perplexes the mind, in place of a science which trains it. This led me to think that we should seek some other method, which, combining the advantages of these three, should be exempt from their faults. And, as the multitude of laws often furnishes excuse for vices, insomuch that a state is far better governed when, having but very few, those are more strictly observed; so, in place of that great number of precepts logic is composed of, I thought I should have enough in the four following, provided I were to take a firm and constant resolution never once to omit observing them.

The four rules of Method.

"The first was; Never to receive anything as true unless I knew it evidently to be such; that is to say, carefully to avoid precipitation and prejudice, and to admit nothing more into my judgments than that which should present itself to my mind so clearly and so distinctly, that I should have no occasion to put it in doubt.

"The second, to divide each of the difficulties I had to examine, into as many parcels as possible, and as might be requisite for better resolving them.

"The third, to carry on my thoughts orderly; beginning with matters the most simple and easiest to be known, rising little by little as by steps towards the knowledge of the more complicated, and even assuming the existence of an order amongst such as do not naturally precede one another.

"And the last, to make throughout enumerations so complete and reviews so general, as to be sure to omit nothing."*

In these four Rules, thus introduced to us, we have the basis of Descartes' celebrated method, the adoption of which, or of its fundamental principle, as the rule for enquiry, may be said distinctively to mark the transition from the Europe of the Middle Ages to that which we call modern. It is a beginning again to think for ourselves—and to think from the beginning: a renouncing of that servitude to "precedents" or authority which is

* Disc. de la Méthode, 1 Œuvr. pp. 132-142.

so curious a mark of the Middle Ages, and is perhaps itself a survivor of the humility or abjectness engendered by monastic discipline. "The respect," says Pascal, writing not long after Descartes, "which is paid to antiquity is now-a-days at such a pitch, in matters where it ought to have the least force, that we make oracles of all its thoughts, and mysteries even of its obscurities; novelties cannot be advanced without peril; and the text of an author is quite enough to destroy the strongest argument."* We perhaps now are in more danger of running into the opposite extreme, and of neglecting the ancients, and the moderns too—particularly if they write in another tongue—from a fixed belief, first, that we must search out truth absolutely *de novo* for ourselves, and secondly that there are so many errors in what others have written, that we shall do even better without their aid than with it. So completely has the spirit of the age been transformed!

Descartes proceeds to describe some crude essays he at once began to make to test his new principles by applying them to geometry and numbers in combination—essays which he says were crowned with success beyond his expectation. But he gives a striking proof of the patience and slow tenacity of his character in the words that follow:—

"This being the most important thing in the world, and one in which precipitancy and prejudice were the most to be feared, I thought I must not undertake to bring it to a head till I should have attained an age much riper than the three and twenty years I then counted, or till I should first have spent much time in preparing myself for it, as well by rooting from my mind whatever groundless opinions I had taken into it up to the time, as by making a collection of various experience, that could afterwards form the matter of my reasoning, and by continually practising

* Pensées, pt. 1, art. 1.

myself in the method I had prescribed, so as to strengthen myself in it more and more."*

§ 4. CHANDOUX.

Neuburg, then, marks a second crisis in the inner history of Descartes. In those intense natures we call men of genius, a ruling thought is apt to become a ruling passion: and so it was with him. The ruling thought formed at La Fléche had been, "my longing after truth will in no degree be gratified through book-learning:" a thought which for the time had the purely negative result of leading him to renounce his books. Now comes a further thought: "My longing after truth can be gratified, if I only make a new beginning for myself." This thought, though it pointed to action, still wanted something more before he could settle himself down to a steady purpose; for he did not as yet see how or where he was to make a beginning.

In the meantime, he had to live and act somehow; and his first care was, during this uncertainty and waiting, to settle for himself what he calls "*une morale par provision*"—a set of temporary maxims of life and conduct, adapted for a person who had once for all broken with traditional rules imbibed from parents or preceptors, and was not yet furnished with principles wrought out by reflexion of his own.

"When one has resolved," he says, "to rebuild his house from the foundation, it is not enough to knock the old structure down, collect stones and timber, call in an architect or make a plan for oneself: one must also, and indeed first, seek out some commodious lodging to dwell in till the new house is habitable. To this business I

* 1 Œuvr. pp. 145-146.

therefore forthwith addressed myself, and presently laid down my provisional system of conduct, which consisted of the following three or four maxims:—

"First, I would conform to the laws and customs of my country, holding fast by the religion which by God's grace had been taught me in childhood, and in other matters regulating myself by the customs of those about me, giving the preference always to such as lie midway betwixt either extreme. The customs of Persia and China," he says, "may for aught I know be as rational as those of France; still, having to live amongst Frenchmen, the latter will be more convenient for me. I choose the middle course, because, since I may find out that either extreme is wrong, I shall not have so far to go to set myself right. Further, in conforming to the opinions of those about me, I shall have regard to what they do, rather than what they say. As to vows," he adds, and no doubt he is here thinking of Loretto, "I shall make none; for why bind down our future, unless we expect to know less or mean worse in the future than the present; for my own part I expect the direct contrary.

"My second maxim was, when I had once made up my mind, to go stoutly through with it. If you lose yourself in a wood, the best course is to take some one path and march in a straight line. If this does not carry you where you want to go to, it will at any rate sooner or later lead you out of the wood.

"My third, to aim at conquering rather my desires than my fortune; reflecting that what I fail to attain after I have done my best must be regarded as simply impossible, and no more to be lamented over than that my body is not so hard as steel, or that I have not the convenience of wings.

"Finally, for an occupation, without disputing the tastes of others, I myself will go on as before; that is to say, I will employ my life in cultivating my reason, and advancing all I can in the knowledge of truth, using the method I have prescribed to myself."*

And so, he says, for nine years after that I did little else but ramble about the world, aiming to be a spectator rather than an actor of the comedies that are played there, searching and proving out illusions, so that by delving through sand and bog, I might at last gain a firm foundation on the rock. I kept my method in continual practice, aiming ever at truth by this means; "and thus," he says, "I made better way than if I had been all the time reading books and frequenting the society of men of learning, although to all outward appearance I was merely spending an idle, harmless time in the diversions usual amongst persons who have nothing else to do than to take their pleasure."

The outer history of these nine seeming idle years may be passed over in very few words. He took an early opportunity to quit the army, and then travelled, at first in the north of Europe, through Moravia and Silesia to Holstein, Friesland, and Holland, where he spent a part of one winter. On this journey he met with an adventure which had nearly cost him his life. Having taken a boat at Emden for himself and his valet, the boatmen formed a design to throw their two passengers overboard and keep their luggage; but, never suspecting the quiet young Frenchman of understanding their language, had the fortunate imprudence to conspire in his hearing.

* Disc. de la Méthode, 1 Œuvr. pp. 146-153. I have condensed the language, Descartes being somewhat too diffuse for modern impatience.

While their plans were maturing, Descartes rose from his seat, drew his sword, and with menacing gesture threatened to run the first man that approached him through the body. The boatmen were intimidated, and the plot went no further.

In the spring of 1622, he returned to France, took formal possession of the little property his mother had left him, settled his affairs, and setting off this time southward, travelled in Italy, spent some time in Rome, visited Florence and Venice, wandered through Switzerland and the Tyrol, and did not return to Paris till June, 1625. During his travels, he made the acquaintance of some eminent and many learned men, and laid the foundation of friendships which were afterwards kept alive by correspondence.

During these travels, and presumably while on his way towards Paris in 1625, it appears that despondency, or fatigue, or the reaction of overstrained thought, had temporarily darkened that vision of a career which we have seen so distinct at Neuburg; for we find that he had in a manner made up his mind to conform to the usages of his family, and settle down in the profession of the law. He expected to find his father in Paris, and he came thither with the intention of consulting him as to the purchase of a certain vacant judicial post in Chatelherault, for which he would qualify himself by a preliminary course of legal training. By a fortunate accident, his father had left Paris, and was at Rennes when Descartes arrived. This little check was enough. René did not either follow his father or write to him, and the half-formed project was abandoned.

Descartes now settled in Paris, and here he lived for several years. Concerning this period he himself tells

us nothing, and we know very little from other sources, except that it appears from his correspondence he had made many acquaintances, and contracted several friendships, with men distinguished in science and letters. It must have been at this period that his friendship with Mersenne was consolidated. One of his correspondents, Ferrier, a man of scientific attainments, and by his calling a maker of mathematical instruments, especially of optical glasses, refers in his letters to valuable suggestions he has received from Descartes personally, and now asks, now returns thanks for, more of the same kind. Mydorgh, the mathematician, renews his intimacy. The study of the science of music is continued with ardour, as we may confidently infer from the subsequent letters. Thus from various quarters we have indications that this period in Paris was one of considerable intellectual activity. It was not possible for the teeming thoughts which he had so many years been brooding over not to be stimulated by the society he was amidst into some kind of outward expression. At the house of his friend Le Vasseur d'Etioles, there had gradually formed itself such an assemblage of men of learning as to deserve the name of a little Academy. Here, we are told, Descartes for the first time began to give utterance to the philosophical ideas which had ripened in solitude. The depth and novelty of these speculations, as well perhaps as what we may term their opportuneness,—the expression they gave to opinions and aspirations that were obscurely fermenting in men's minds,—caused them to be listened to with extreme interest. Cardinal Berulle, a great patron of letters, was impressed by them, and urged him to give them to the world. Even publishers did not wait to be wooed. "There were some publishers," writes Descartes

to Mersenne, "who offered me a present if I would place in their hands what I should write, and this before I left Paris, or had written a line. I dare say they would have been fools enough to print it at their own expense, and possibly have even found enough of simple readers to rescue them from their folly by buying copies."*

An incident, which under the hands of Fischer assumes almost a dramatic form, brought this state of things to a crisis.

There happened to be in Paris at this time a clever and well-informed charlatan named Chandoux, a physician, who had the ambition to pass himself off for a man of original genius. His qualifications were a fluent tongue, readiness and tact, and a second-hand acquaintance with the Schoolmen and likewise the writings of Bacon and Hobbes,—the latter probably not very generally known in Paris. On the strength of this, he seems to have proclaimed a new system of his own, founded on principles of irrefragable certainty, and pregnant with results, the value of which he advertised whenever he could find a listener. The Papal Nuncio, Marquis de Bagné, had been dazzled by his rhodomontade. He wished to show off this new light in his own circle, and invited a distinguished company of the learned to hear the Doctor's theories. Descartes, Mersenne, the Cardinal Berulle, were amongst the number of the guests. Chandoux, being drawn out, made a set speech in exposition of his doctrine. He was fluent and taking, and his performance was greeted by abundant applause and compliments. Descartes was silent. This being noticed, the company insisted, in spite of repeated excuses, that he should give

* 6 Œuvr. p. 140.

them his opinion at large. He began by praising the style and ease of language of Chandoux, declared his concurrence in what had been said as to the necessity of abandoning the Schoolmen and constructing a philosophy afresh; but as for what was positive, or professed to be new, in that which Chandoux had laid down, the objection to it all was simply this, that it had no foundation, because there was in it no criterion for distinguishing truth from error. Then, dropping Chandoux, he added that without such a criterion there was no opinion whatever, let it be never so commonly received, that could not be as easily disproved as proved. Here he was thought by the company to be paradoxical, and there was some murmur of dissent. "Take any instance you like," said Descartes, "and I will maintain my position." The challenge is accepted. Some one propounds for him a truth received as such by all the world, and likewise a proposition as unanimously held to be false. Descartes proved, "by twelve evident reasons," that the supposed truth was false and the supposed falsehood true. Having done this in a convincing manner, his object, he added, was merely to show how impossible it was to construct any solid basis of opinion without a "touchstone of truth;" that touchstone being in fact nothing else but the method of scientific thinking, by means of which he himself had made that convincing experiment. Chandoux was extinguished, and even forgotten. The curiosity of all present was excited, and Descartes was entreated to explain the secret of that method. The Cardinal took him apart, and succeeded in engaging him to promise that he would complete his work, reduce it to writing, and give it to the world.

Thus it is to Cardinal Berulle, we may say, that

philosophy owes the "Discours de la Méthode," and, what is of much more importance, the "Meditations."

One parting word as to Chandoux. In the world of speculation he had run no risk, and even gained a temporary applause, by skilfully making the false pass for the true. He was unwise enough to transfer the experiment to the world of action, and, some short time after, was hanged for coining.*

§ 5. Solitude in Holland.

The first step which Descartes took, in order to carry out the promise thus given to the Cardinal, was, to quit Paris, seclude himself from his friends, even hide himself from the possibility of distracting visits or correspondence, that he might dwell completely alone with his thoughts. He left Paris in 1629, and went into Holland, where he remained, with few and short intervals of absence, for the next twenty years.

The precautions he took to guard his solitude unbroken appear whimsical. No one, except Mersenne, was informed of the exact place of his retreat. Whether as an additional precaution, or to shun acquaintance of his Dutch neighbours when it began to grow troublesome, he frequently shifted his place of abode, so that, for the twenty years of his stay in Holland, we have four and twenty changes of residence, divided amongst thirteen different towns or villages. The longest period of his stay in one home was in Amsterdam; a place which he

* This anecdote, which has the appearance of being a little coloured, is given on the authority of Fischer, 1 Hist. Phil. pp. 170-173. Fischer does not give his. I find no mention of it in the Notes to Thomas's Éloge, and cannot at the moment trace it to any original source.

praises, in a letter to his friend Balzac, mainly as one in which it was possible to be completely alone. In the country, he says, you may find no doubt a secluded valley or ravine; but, unfortunately, neighbours come to visit you, and are ten times more tedious than they are in Paris. Here, the streets may be crowded, but everybody is full of his own business and merchandize, no one minds me, I look on the people that pass by as one might look at the trees of a park or the cattle or sheep in the meadows, and their noise no more disturbs my reveries than the murmur of a running stream.* Then the climate of Holland suited him, and the peaceful industrious ways of the people.

And yet Descartes was by temperament the very reverse of unsociable. During these periods of his life in which he supposed himself to have the leisure for it, we find him surrounded by friends. In one of his letters, excusing himself for not writing more frequently, he says there are many who remain confident of his affection though he never writes to them at all, adding that, were he to keep up a correspondence with all those he loved and esteemed, he should have no leisure for anything else.† He stipulates with his first publisher that he shall have two hundred copies of his book, to present to his friends.‡ He had in fact hitherto, with the exception of his two years of seclusion in Paris some twelve years before, lived all his life in society. "The best thing in life," he says on one occasion, "is to enjoy the conversation of persons one cares for.§

But solitude was necessary for him, chiefly on account

* 6 Œuvr. pp. 200-203.
† 6 Œuvr. p. 167.
‡ Ib. p. 276.
§ 9 Ib. p. 410.

of the slowness and inner toil with which his thoughts were elaborated. The work even of demolition,—the clearing of his mind from old prejudices,—proved much more difficult than he had anticipated at Neuburg, eleven years before. "I perceived," he says, "that it is not so easy for a man to get rid of his prejudices, as to pull down his house."‡ When he did begin to construct, it was one of his principles of method, after making one step, to rest there a long while, and as it were live into it, and grow at home there, before advancing further. He meditated long, particularly in his earlier years, before he began to commit anything to writing. He was so completely engrossed by what was on his mind that it was painful to him, and a serious loss of time, to be called upon, when in the midst of one subject, to bestow any attention upon another. "I have not," he says, "a mind strong enough to be employed at the same time on several topics; and, as I never find out anything but by a long train of diverse considerations, I am obliged to give myself up entirely to a matter, if I wish to examine any part of it."† He writes in 1630 to Mersenne: "I work very slowly, because I take much more pleasure in instructing myself, than in putting into writing the little I know. . . . . I pass my time so pleasantly in instructing myself, that I never set myself on writing my Treatise except by constraint, and in order to acquit myself of the resolution I have taken, which is, if I live, to put myself in a condition to send it to you in the beginning of the year 1633." All this may serve to account for his need of uninterrupted quiet. He wrote mostly in bed, in the mornings. A glimpse of him at

‡ 1 Œuvr. p. 91. † 6 Ib. p. 53.

his work is given us by one of his friends, who called on him one morning at eleven, and found him in bed, meditating, and occasionally noting down his thoughts on paper.

And so, for several years, always in solitude, though sometimes the solitude of a busy unsympathizing city, sometimes that of country villages or lone houses, amidst the windmills, and poplar-lined canal-banks, and long green flats of Holland, the patient work goes on.

Scattered glimpses, here and there, from his letters to Mersenne, enable us to form some idea of the manner of its growth. It appears that he had begun to write before he left Paris. "You find it strange," he says, "that I had begun to write some essays whilst I was in Paris, and that I have not continued them. I will tell you the reason: it is that, whilst I was working on them, I acquired a little more knowledge than when I began; and, in adapting my work to that, I found myself constrained to make a first design, somewhat larger than the first: just as if one beginning to build a dwelling-house had come into an unexpected fortune, which led to such a change in his condition that the building he had begun would be too small for him, in which case you would not blame him for beginning afresh on a more suitable plan."* And, although in this letter he appears confident that no other such complete change would be requisite, it is more than probable that he found himself mistaken. There were in fact two parallel lines on which he laboured during the years between his settling in Holland and the publication of the "Meditations." The one was the purely philosophical, having for its object to set forth the basis

* 6 Œuvr. p. 103.

and criterion of truth, and the right method of enquiry. The other was the scientific; a train of investigation originated perhaps for the mere sake of illustrating and testing his philosophic method, but soon pursued on its own account with much ardour. He studied mathematics, optics, mechanics, acoustics; made experiments in anatomy, particularly with reference to Hervey's then new theory of the circulation of the blood: was consulted by Mersenne, who appears to have had a truly Catholic curiosity on all subjects of intellectual interest, on such a variety of difficult points that Descartes jestingly remonstrates, "You seem to think I know everything;" and goes so far as to form the project of writing a book, to be called "The World," which is to contain, amongst other things, "a general description of the stars, the heaven, and the earth; the diverse qualities of things that are on the earth—matters in which I shall join experiment with ratiocination; which has occupied all my days of late; for I am making experiments to determine the several properties of oils, spirits, salts, common and strong waters, and other things."* And the relation of these two lines of industry to one another, as it grew and shifted, may be traced in the correspondence.

The first nine months of Descartes' stay in Holland were taken up exclusively with the philosophical portion.† During this time he no doubt sketched an outline which covered the ground now occupied by the "Discours de la Méthode" and the "Meditations." It was, in this stage, a very short work: "You may read it with ease," he says, "in an afternoon."‡ But, even while he was writing this first draft, the idea entered his mind that he

* 6 Œuvr. p. 225. † Ib. p. 109. ‡ Ib. p. 101.

might combine with it, in some way or other, the results of his various scientific labours; perhaps as illustrating the successful working of his Method, perhaps as forming a body of science, to which the treatise on the method and criterion of genuine knowledge might serve as an introduction. This expanding of the design led of course to delay in the completion. In April, 1630, he assures Mersenne he means to send him the volume towards the beginning of 1633, if he lives so long, and even excuses himself for this delay.* When that time comes, he writes (March, 1633): "I must tell you that, though my Treatise is nearly finished, and I can, if you insist upon it, keep my promise of sending it you this Easter, yet I should be very glad to keep it back a few months longer, to revise and polish it, and likewise to trace some diagrams which it will require, and which give me much trouble; for, as you know, I am a very bad draughtsman (*peintre*)." And then he goes on to describe his work, as it then stood. It was to begin with a general description of the stars, the heavens, and the earth; then, concerning particular bodies on the earth, no more than their diverse qualities, with some few of their substantial forms, thus to open the way so that, in process of time, by adding experiment to ratiocination, we may come to know them all. The experiments necessary for the purpose have occupied, he says, some time: but he now proposes to pay his debt with interest.† The intended Treatise he speaks of under the title of "The World." It seems now to be in danger of becoming an encyclopædia.

A few months later, an unexpected obstacle appeared,

* 6 Œuvr. p. 101. † Ib. pp. 224-225.

in the shape of Galileo's condemnation by the Holy See, and the effect it had on the mind of Descartes. In July of the same year (1633), "Only a fortnight ago," he writes to Mersenne, "I was resolved to send you at least a part of my 'World,' if the whole could not be copied out in time for a new year's gift: but you must know that, having some days ago made enquiry at Leyden and Amsterdam for Galileo's 'System of the World,' which I fancy I heard was printed last year in Italy, I was told it was true it had been printed, but that all the copies had been burnt at Rome, and the author sentenced to some penalty. This piece of news has astonished me so much that I am almost resolved to burn all my papers, or at least let no one see them." He feels convinced, he says, that it is Galileo's doctrine of the earth's movement that has brought on him this censure; if this doctrine be false, he adds, "so is my philosophy, for the one is proved by the other;" he will rather suppress than mutilate his work, but will on no account utter a word that should be disapproved by the Church.* Mersenne's remonstrance fails to shake his resolution: nothing more is at present done: and in the following year (March 1634) he writes: "I desire entirely to suppress the treatise I have written, and to lose almost my whole labour for four years, in order to render an entire obedience to the Church, which has forbidden the opinion that the earth moves." He is not idle, however, he adds; but thinks only of instructing himself, judging himself very little capable to instruct others.†

Descartes has been much blamed for this timidity; not perhaps entirely with justice. We are to remember that

* 6 Œuvr. pp. 238-240 † Ib. pp. 250-252.

it was not fear of personal consequences which affected him: he was living, and intending to live, in Protestant Holland, the home of religious liberty, beyond reach of the Inquisition. But he was eminently a devout Catholic: he had from the earliest times placed religious faith in a region apart, where there was no admittance for the spirit of questioning:* and to find an unexpected border-difficulty between this sacred tabooed region and that domain of science in which he claimed absolute license of free enquiry, must have produced a painful conflict in his mind, and made him desirous to turn his thoughts, if possible, away from the subject. "My desire," he says, "is to live in quiet, as one who has taken for his motto '*bene vixit qui bene latuit.*'"

After some few years, however, that overmastering impulse which renders it almost impossible for an original thinker to keep his thoughts to himself, overcomes this reticence, at least in part. Descartes has himself detailed the gradual changes of opinion he went through. At first he endeavoured to content himself with meditation, experiments, and the gathering of knowledge for his own use. Afterwards he thought he must still write down whatever seemed to him a new truth and of value, and even do so with the same care as if he meant to print it; as well for convenience of reference and for an aid to memory, as because the exact examination of his thoughts in the act of writing often led to his correcting or adding to them, and for the further reason that by possibility, after his death, there might be found amongst his papers something useful to posterity.† The third stage was, sup-

* 1 Œuvr. p. 153: 6 ib. p. 308.

† Disc. de la Méth., 1 Œuvr., pp. 196-197.

pressing indeed all those dangerous speculations which came too near the heresies of Galileo, to set forth his general doctrines on method and the criteria of truth, accompanied by illustrations drawn from the sciences of optics and pure mathematics.

Accordingly, in March 1636, he writes to Mersenne, asking him to arrange for the printing, in Paris, of a volume which is to contain four treatises, all in French, the general title to be, "*The project of a Universal Science, which can raise our nature to its highest degree of perfection; also Dioptrics, Meteors, and Geometry, wherein the most curious matters which the author could select, in order to give proofs of the universal science he sets forth, are explained in such a manner that even those who have not studied may understand them.*" He does not wish, he says, to put his name to it, and begs his friend to keep his secret from everybody, unless perhaps from the publisher.* In the following year (1637) the book was published, not however in Paris, but in Leyden. Its title is reduced to the more modest one of "*Discours de la Méthode, pour bien conduire sa raison, et chercher la Vérité dans les sciences:*" to which are added, as separate treatises, the Dioptrics, Meteors, and Geometry. I shall say nothing concerning these three last.

The "Discours de la Méthode" is, as compared with the "Meditations," a slight work, though pleasantly written, and is chiefly valuable on account of the autobiographical matter it contains. It consists of six essays. In the first, the author tells the story of his school-days, and of his resolution to abandon book-learning; in the second,

* 6 Œuvr., 276-278.

describes his inner experiences during the winter-quarters at Neuburg, and sets forth the rules of his new Method, as they then dawned upon his mind: the third is devoted to an account of his "Morale par Provision:" the fourth narrates the process which led his mind to and past the *cogito ergo sum*,—a topic which I here purposely omit, since the reader has it at large in the "Meditations:" the fifth is a sketch of his theory concerning the essence and mutual relations of mind and body,—likewise more fully set forth in the latter work; while the sixth is made up principally of reasons for not pursuing or publishing, since the affair of Galileo, the author's speculations on the system of the universe. "My only purpose in printing this time," says Descartes in a letter to a friend, "is to prepare the way for another work which I hope to bring out, in case the public should desire it and I can safely venture. I am sounding the ford."*

It may be presumed that the venture was successful. The correspondence of the two years ensuing proves at least that the publication of the volume plunged the author into a sea of controversy with learned and scientific persons in Paris, especially with regard to the theories propounded in the Dioptrics. Many letters are highly complimentary, and in replying to one of these Descartes declares that his book had obtained an approbation exceeding his hopes. But I pass on to the "Meditations."

In November, 1639, Descartes writes to Mersenne:— "I have now in hand a treatise in which I endeavour to make clearer that which I have already written on this subject," (he is speaking of metaphysical speculations). "It will not be more than five or six sheets of print, but

* 6 Œuvr., p. 306.

I hope it will contain a good part of metaphysics. And, in order to do it the better, my design is, to print only twenty or thirty copies, and to send them to twenty or thirty of the most learned theologians I can make acquaintance with, in order to have their judgments on it, and learn from them what it were well to change, correct, or add to it, before making it public."* In May, 1640, he sends the manuscript to Emilius and to Regius, professors in the University of Utrecht, concerning both of whom I shall have more to say in the sequel, for correction and criticism.† In November he writes to Mersenne that he has forwarded the book to him, through M. de Zuytlichem; he has given it no title, he says, but thinks it might be called, "Renati Descartes Meditationes de primâ philosophiâ," for, he adds, "I do not treat in particular of God and of the soul, but in general of all the first things one can know in philosophizing."‡ He requests him to obtain the opinions in particular of the most learned Jesuits, and would be glad, if possible, to have a collective judgment of the College of Sorbonne. Mersenne evidently uses much diligence to gather the opinions of the learned. A copy is sent to Thomas Hobbes, another to Gassendi, another to Arnauld, another to Bourdin, a learned Jesuit. It is explained that their criticisms, with the author's replies to each, are to be published in the same volume with the work itself. Criticism, thus preceding publication, is not wanting. Elaborate essays by each of the learned persons named are sent in; Mersenne contributes objections and long comments of his own; there is also a collective critique on the part of divers persons not named. Descartes writes replies to each. In the sequel, a large volume, of

* 8 Œuvr., pp. 175-176. † Ib., p. 219. ‡ Ib., p. 392.

which the text of the "Meditations" forms by far the smaller portion, was published in Paris, by Joly, in August 1641. In November of the same year, "a bookseller of Amsterdam, named Elzevir," obtained from the author permission to publish an edition there, on the condition that no copies should be sent into France.*

"In this work," says Fischer, "Descartes exhibits to us the process of his enquiry, in the manner in which it arose and took its course within his own mind, from problem to problem, from solution to solution. It presents itself to the reader with the freshness of newly-discovered truth, filling and absorbing every faculty, and carrying away his sympathy even against his will. In every expression there is a temperate strength which exhibits the matured fruit of year-long meditation. Thoroughly and deeply has the doctrine been unfolded, which here like a drama in monologue moves onward before our eyes. Its problem is not merely laboured at, but laid bare, opened out to the full stretch, surveyed as from a height, its solution tested, assailed with new doubts and made uncertain, then again defended from the assault, at length fortified, so as from the newly-conquered certainty to sally forth to new problems. The doubt is not merely laid before us with all its grounds: it is accompanied by, it overflows with, the mental disquiet it has aroused; we hear not the doubt only, but the doubter, and the same impression at once busies our understanding and touches our sensibility. The thoughts in this book, with all the clearness and solidity they exhibit, have moreover the liveliness of per-

* 8 Œuvr., pp. 541-542. Elzevir's edition must have sold quickly: the copy I have is of the third edition, in 1650. Of this, the "Meditations" occupy 42 pages, and the "Objections and Replies" occupy 287 pages.

sonality, and still carry about them the feelings they first awakened, feelings which they express so spontaneously and unaffectedly, just as the nature of the matter in hand calls them forth, that this piece of writing, severely reasoned and compactly put together, has power to produce the impression of poetry, and forms a work of philosophic art in its kind unequalled."*

§ 6. Domestic and Social Life in Holland.

Up to this point we have been dealing with Descartes much as if he were a mere thinking-machine. We have traced the history of his great work, by stages, from the first immature doubt which led him to turn away from book-learning as deceptive, to the dim conception at Neuburg of a possible fresh beginning of science, and onwards, to his "Morale par Provision," to his wanderings in order to learn the ways and thoughts of men as they lived, then to the ardent if unmethodical renewal of his scientific studies in Paris, finally to the elaboration of his great work in the solitude of Holland. This description of the genesis of the "Meditations" belongs most properly to the History of Philosophy, and forms almost a necessary prelude to the reading of that book. And here, perhaps, I might not unfitly stop, and consider my task as ended. But during the progress of it there has grown up in me a certain personal interest in Descartes, regarded not as a thinker merely, but as a man; and, in the hope that some corresponding interest may have been excited in the mind of the reader, I will go on now to set down a few personal traits and incidents of his life, which

* Fischer, 1 Hist. Phil., pp. 208-209.

may enable us to become better acquainted with his personality.

"Would you wish"—says Victor Cousin—"to see Descartes himself? go to the Museum of the Louvre, and study the excellent portrait of him by Hals. There you have the firm and decided air of our great countryman, and that strong head, resembling that of Corneille, of Pascal, of Arnauld, of Bossuet. It is by no means a Plato with the broad brow, the large eyes, the gentle smile, the enthusiastic mouth half opened: this is rather the severe Aristotle, but without his air and gesture of contention. The lips are closed but not compressed; the look tranquil and assured; beard and moustache half-civilian, half-soldier; it has nothing ideal, but all is simple, natural, and manly."*

Though the transition from the life of seclusion to a state of fairly sociable and even domestic life,—so far as domestic life is possible without wife and child,—is nowhere marked, it is certain that in the course of time, as the first strain of his great undertaking began to relax, the jealousy with which Descartes guarded his seclusion began to relax likewise, and he at length allowed himself in some degree to indulge in the pleasures of social intercourse. It was his habit, as he tells the Princess Elizabeth at a later period, to interpose long intervals of complete rest between his intellectual labours; a habit which he recommends to her as necessary for mental as well as bodily health; and these intervals he spent by preference rather in the country than in the towns; for although, he says, you may be as solitary in a city as in the fields, yet the noise and bustle, however little you may heed them, somehow find entrance to the mind, and

* Cousin, Hist. Gén. de la Phil., p. 382.

disturb its tranquillity. During these periods of relaxation, there was no reason why he should not join a little in such cheerful society as offered itself. And in Holland at that time there was no lack of society agreeable to an educated man, nor especially of the best kind of all, that of cultivated and intelligent women. The great hospitality which the Hollanders extended to the numerous political refugees, or men obnoxious to religious persecution, or who had taken refuge in that country for the sake of absolute freedom of utterance, made Holland at that time a rendezvous of men of intellectual force from all parts of Europe. The University of Utrecht, then recently established, promoted intellectual activity in that city, and kindled an emulation on the part of others. Education appears to have been carried to a high pitch amongst the fair sex. We are told, for example, of one Mademoiselle Anna Maria Schurmans, of Utrecht, who is described as versed in the Hebrew, Syriac, Chaldæan, Arabic, and Ethiopian languages, in addition to most modern tongues; an accomplished writer in Latin and French, able to compose speeches and poems in Greek and Hebrew, skilled in painting, a clever etcher, thoroughly at home in theology, including Aquinas and other Schoolmen; modest and retiring withal, fond of seclusion, and with a tendency to mysticism.* This lady is referred to once only in Descartes' corrrespondence, and in terms which imply that he was accustomed to converse with her frequently. Voetius, a Protestant divine, towards whom Descartes bore no good will, has, he tells Mersenne, obtained such an influence over the Demoiselle de Schurmans, that, though she had an excellent talent for poetry, painting, and other such accom-

* Fischer, 1 Hist. Phil., pp. 186-187.

plishments, she has for the last five or six years occupied herself with nothing but controversies in theology, which has spoilt her for conversation with decent people (*tous les honnêtes gens*).*

In 1640 the father of Descartes died, at the age of 78. On this occasion René, who was then busied in preparing the "Meditations" for the press, received a painful proof that he had been completely forgotten by the other members of his family. It had occurred to none of them to inform him of the old man's illness or death, until a letter received from René, addressed to his father, reminded them of the existence of their brother in Holland. René, supposing his father to be alive and well, had written to him an affectionate letter, in which he justified himself for living so long in a foreign country, at a distance from a father whom he loved, and spoke of the desire he had to return shortly to France, to revisit him, and receive his blessing. The letter arrived at Rennes a month after the old man's death. "It was remembered then," we are told, "that there was in foreign parts another member of the family, and he was written to as a matter of propriety (*par bienséance*)." This circumstance prepares us to hear without surprise that in the family and testamentary arrangements which ensued the absent member was not much considered. "He had not much to thank his brother," we learn on the same authority, "for the arrangements he made with him for the affairs of the family and the disposition of the estate. This brother was interested and greedy, and knew well enough that philosophers are not fond of law; in consequence, he made the most of this philo-

* 8 Œuvr., p. 388.

ophic easiness."* René, absorbed in the publication of his great work, and hurt by the treatment he had received, cared not to visit France, and let the family affairs be settled in his absence.

The habit of meditating and of living alone rendered Descartes, we are told, somewhat taciturn; though not to such a degree as to interfere with the pleasure he gave, as well as took, in society. "He had," it is said, "a gentle politeness which was felt even more in his sentiments than in his manners,—a kind that, if not always the politeness of a man of the world, is certainly that of a philosopher."† He had been a soldier, and had lived much in the gay world, so that we may be sure he understood at least the art of making himself agreeable when he pleased: and we are told his temper was easy and generally obliging: of which indeed we have a proof in the circumstance that he was often asked to write letters of intercession, or to intercede personally, on behalf of neighbours, sometimes in very humble circumstances, who had favours to ask.‡ Descartes himself was a man of small means. His patrimony did not exceed six or seven thousand livres, on the interest of which he lived; and though many offers of considerable sums were made him, from time to time, by patrons and friends of science who desired to furnish aid for his expenses in experiments, he declined all such gifts, knowing he said, how to be wealthy enough, by keeping down his expenditure. From the time he came into Holland, he dressed always in simple black cloth. At table he preferred vegetables and fruit to animal food. Philosophy and science were dismissed at midday, and his afternoon

* Notes to Thomas's Éloge, 1 Œuvr., pp. 107-108.

† Ib., p. 113. ‡ See his letters, 8 Œuvr., pp. 60, 427

were divided between conversation with his friends and work in his garden. He seems to have grown a little proud of his garden, as may be inferred from a letter in which he invites one of his friends to bring his wife and pay him a long visit, holding out as one of the attractions the fruit they should taste. He took great care of his health, which this simple and regular mode of life kept sound though not robust. He cultivated tranquillity and a cheerful temper as the surest means of health. He disliked compliments, distrusted flattery, but was quite ready to talk about himself and his work, without ostentation, but in a manner which showed he knew his own value, and was superior to the vanity of affecting to depreciate it. He was—unless greatly provoked—temperate in controversy, that great temptation of the learned in those days; and it has been said of him that, if he ever wounded an adversary, it was by a humiliating moderation. "When any one offers me an affront," he once said, "I try to lift my soul so high that the affront shall not reach me." I am afraid it must be acknowledged, however, that this moderation of language applies rather to his earlier days than his later: but the reader will have materials presently for forming his own opinion on this point.

"He has been reproached," says a biographer, "for having given way to the weakness of love, herein very unlike Newton, who lived more than eighty years in the utmost austerity. There is reason to think that Descartes, born with a very sensitive disposition (*une âme très sensible*), could not resist the charms of beauty. Some authors have asserted that he was secretly married; but, in one of those moments of confidence in which the unguarded heart opens itself freely to a friend, Descartes,

it is said, himself avowed the contrary. However this may be, all the world knows that he had a daughter named Francine: she was born in Holland, July 13, 1635, and was baptized with his name. He was already thinking of having her conveyed to France for her education; but she died suddenly in his arms, September 7, 1640, when she was but five years old. He was inconsolable for this loss. Never, he said, had he experienced a greater sorrow in his life. Afterwards, he loved to talk about her to his friends: he often pronounced the name of his dear Francine, speaking of her with the most tender grief, and he even wrote a little history of this child, which he intended to prefix to one of his published works, as if desirous to preserve her name, since he could not preserve her life."*

Descartes appears in a most pleasing light in his relations to his domestic servants. As for the old nurse who had taken such care of him in his childhood, he not only settled a small pension upon her, but his visits to her, and solicitude for her well-being, and tender attachment to her, were only terminated by her death. He treated his domestics, we are told, as friends ill-used by fortune, whom it was his duty to cheer. "His house was for them a school of manners, and for several became a school of mathematics and of science." He would himself give instruction to such of them as were capable of it, and took pains afterwards to advance them in the world, finding them posts corresponding with the training they had received from him. "Why do you thank me?" said he, to one of them to whom he had rendered such a service: "you are my equal, and I do but pay a debt."

* 1 Œuvr., pp. 113, 114.

Several of those he thus formed are said to have filled honourable posts with distinction." *

The years 1640 and 1641, in which he sustained the two great griefs of his life, the loss of his father and of his little daughter, made some amends, as being those which witnessed the publication of his "Meditations," and the commencement of his intimacy with the Princess Elizabeth of Bohemia, to whose singular fortunes and interesting friendship with Descartes I must devote a separate section.

§ 7. The Princess Elizabeth.

There dwelt in the Hague at this time, in great poverty, but with a struggling pretension to a sort of regal state, the widow and children of the dethroned Elector and Count Palatine, Frederic of Bohemia,—a name familiar in English history as the Elector-Palatine.

This prince had known the utmost extremes of fortune. He had married a daughter of our James the First; had placed himself at the head of the Protestant cause in Europe; had contested with Ferdinand, and for a time not unsuccessfully, the title of Emperor of Germany. Defeated at the battle of Prague, he with his wife had had to fly for their lives; he had been solemnly deposed from the Palatinate; had again and again renewed the struggle for Electoral if not Imperial rank, with the aid successively of Count Mansfeldt, the Duke of Brunswick, the Duke of Buckingham, using for a time the power of England in the name of our Charles the First, and finally, and with the fairest hopes of success, the great

* 1 Œuvr, p. 113.

Gustavus Adolphus; so that for many years the great quarrel of Enrope, the Thirty Years' War, had turned on the name of this Elector-Palatine, whose restoration to his dignities was to symbolize the triumph of the Protestant cause. Gustavus Adolphus was slain, the Protestant cause did not triumph, and the Elector-Palatine, after a brief and most uncomfortable refuge in Holland, died, it is said, of a broken heart, leaving his widow and children pensionaries of the States-General of the Netherlands.

The widow was a woman of great spirit and beauty, and singular powers of fascination, but not judicious, somewhat hot tempered, a bad manager of money, and addicted to favouritism amongst her children, which had very ill effects. She was always in trouble about her finances, which is scarce to be wondered at, since her brother, Charles the First, had promised her a pension, which was paid very irregularly, and sometimes not at all. Creditors were a continual source of annoyance. The Dutchmen, we are told, used to make merry over "the royal beggars."* But in the main they respected her rank, insomuch that at Court festivities her eldest son was, though not without a contest, allowed to take precedence of the Prince of Orange.†

Into this singular family circle, its splendours and meannesses, Descartes was allowed to enter. It was the eldest daughter, Elizabeth, to whom the introduction was due. This young lady, born in 1618, and consequently two or three and twenty years old when the "Meditations" were published, had been brought up very plainly in Germany by her grandmother. the Countess Juliana, and had acquired a strong taste for learning. She knew six

* Benger: Memoirs of the Queen of Bohemia, Vol. 2, p. 120.

† Ib., p. 353.

languages, we are told, and had a real talent for mathematics. The reading of Descartes' book had kindled in her mind a lively enthusiasm. "From this moment," says Fischer, "everything that had gone before appeared to her a mere nothing; now first she began, what hitherto she had only longed, to have an intellectual life (*geistig zu leben*). From that moment she was his disciple."* It is easy to understand the attraction offered to a youthful and ardent mind, by a book which invites the student no longer passively to imbibe the thoughts of others, but to seek out truth, as something fresh and undiscovered, by processes of original and independent thinking. She felt a strong desire to know the author, and to obtain his assistance in her studies in philosophy. The Baron d'Hona, an old friend of the family, knew Descartes, and brought him to visit his young disciple at the Hague.

The Princess Elizabeth was the eldest child, the only one born during the brief period of her parents' splendour. She is described as not regularly handsome, but elegantly formed, graceful, and having fine eyes. She had been engaged, or almost engaged, to Stanislaus, King of Poland, but the match had been broken off, with her own entire approbation, professedly on account of the difference in religion, Stanislaus being a Roman Catholic. Elizabeth appears to have been of a grave and lofty character, intellectually superior to the rest of her family; a young lady, however, of strong feelings and impulses, somewhat passionate at times, a little quick in her re-

* Fischer, 1 Hist. Phil., p. 219. Fischer, I think, mistakes in supposing that it was the "Discours de la Méthode" which produced this effect. The first letter that passed between the Princess and Descartes was in 1643, and the tone of it proves that their acquaintance was at that time recent, or at any rate slight.

sentments, and not altogether happy with her mother, who showed a decided favouritism towards her younger sister, Louisa, a girl of remarkably gentle and fascinating manners, and to Sophia,* the third, who seems to have been the beauty of the family. As for the brothers, the eldest was a selfish and worthless youth, who gave his mother many anxieties; the others were at this time mere boys.

Between Elizabeth and Descartes there soon sprung up a warm friendship. The difference in rank imposed a great reserve on their relations. We have not the materials for judging whether the feelings of either were such as to arouse a wish that the barrier against a closer intimacy could be removed. There are indeed some materials for a conjecture on the subject: scanty, however, for not one of the princess's letters has been preserved, and Descartes, in those he wrote, was discretion itself. Her name, even, is not breathed in any extant letter of his to Mersenne, or any of his most intimate friends. I shall briefly indicate the facts, with no further comment than that the reader, if so inclined, can easily weave them into a romance, but when he has done so, will perhaps doubt whether it has a basis more solid than his own fancy.

Descartes paid frequent visits to the family at the Hague, and one, at least, of his changes of residence was made on purpose to be nearer to them. Of these visits, however, we have of course no details: we must look to the correspondence by letters.

The correspondence between them began on the side of Elizabeth, who writes to Descartes, apparently in 1643, propounding a certain difficulty she had felt in reading

* Who, marrying the Elector of Hanover, became the connecting link between the House of Stuart and the present royal family of England.

the "Meditations," desires his solution, and enjoins him, with a pretty classical allusion to Harpocrates, to keep her writing a profound secret. Descartes in his reply thanks her with effusion for writing to him; thanks her likewise for the injunction of secrecy, which will oblige and enable him "to treat her letter as misers do their treasures, making it their supreme delight to gaze on them in secret, and keep them to themselves." It will be easier for him, he says, to answer her criticisms by letter than face to face, for she cannot have failed to perceive a certain occasional confusion on his part, when he has had the honour of talking with her; he had indeed found too many marvels to admire at the same time, in hearing discourse so admirable whilst looking on a face "so like that which painters give to angels." Then he proceeds, at considerable length, to discuss the young lady's difficulty, which was, how to understand, on the principles of the "Meditations," the nature of the union of soul with body.*

Elizabeth was not satisfied, or at least not silenced, and writes again, desiring further elucidations. Descartes replies, in a letter chiefly interesting here as showing a disposition to dwell on more personal topics. He gives her some sensible advice, aimed chiefly against excessive or too prolonged attention to matters of purely abstract speculation. He talks to her about the precautions he had himself found it necessary to observe, in order to guard against the excessive strain upon the mind which such speculations are apt to produce. The study of philosophy, he tells her, was useful for a time, in order to obtain just opinions concerning God and the soul; but,

* Letter of Descartes to Pr. Eliz. (May 15, 1643), 9 Œuvr. pp. 123-129.

these once obtained, it was good to pass on to studies and occupations less absorbing. "The extreme devotion I have to your highness," he concludes, "makes me hope that my frankness will not be displeasing to you."*

"There is nothing in the world so dear to me"—he says in the first letter—"as to be able to obey your commands."

In the following year (1644) Descartes brought out his great book, "Principia Philosophiæ." He dedicated it to the Princess Elizabeth, and the Dedicatory Letter is one that the princess might well have read with extreme gratification, coming as it did from a man who had now achieved a reputation second to none in Europe, and who was already receiving, from all quarters, tributes of praise and admiration that were a foretaste of his future and permanent renown. He begins by gravely stating that it would ill become him to use flattery, here at the outset of a work in which he was labouring to lay down the foundations of truth. The principal advantage he has derived, he declares, from the writings he has thus far laid before the public, has been the privilege of making the acquaintance of this young lady, of learning the charms of her character, and the gifts and the cultivation of her intellect. On this topic he dilates with much delicacy and grace of expression, but in a manner which shows that his heart is in his theme. He has never, he says, met with any one who has so perfectly understood the more difficult parts of his writings, or who has so well combined the mathematical with the metaphysical spirit. He speaks at large of the industry with which, under all difficulties, she has cultivated her natural gifts. "And

* Letter of Descartes to Pr. Eliz. (18 June), 9 Œuvr., pp. 129-135.

all this perfect and diverse knowledge is not found in some old doctor who has spent a lifetime in study, but in a princess still young, and whose face represents that which the poets ascribe to the Graces, rather than to the Muses or the sage Minerva." Lastly, he praises a temper in which high spirit and gentleness are so combined that evil fortune, though she has seemed to try her worst, could neither irritate nor break it.*

Elizabeth certainly was gratified, and, in writing to thank him, asks him further questions concerning this new work, to which he replies in a letter dated by the editor July 20, 1644.† He is on a journey, he says, but hopes in two or three months to have the honour of visiting her at the Hague.

In the spring of the following year (1645) we find that Elizabeth is out of health, and has been sent to Spa for her recovery. Descartes writes to her (March 15) a friendly letter of sympathy, in which he alludes to other troubles that are oppressing her, and urges her to divert her imagination from painful thoughts. Dilating on the ill effects of low spirits upon the bodily health, he takes occasion to talk to her about his mother and his own boyhood, setting down his gradual recovery from a state of chronic sickliness to the way in which he had accustomed himself to look always on the bright side of things.‡ Elizabeth replies to this confidence in a very encouraging manner, desiring him to go on writing in order to cheer the tedium of her convalescence. This leads to a very long exchange of letters. Descartes, though in the midst of a crowd of scientific occupation, interrupted too by a laborious and various correspondence, mostly controversial, thrown upon him by his recent pub-

3 Œuvr., pp. 3-8. † 9 Œuvr., p. 186. ‡ Ib., p. 200.

lication, undertakes the office of consoler with alacrity. He proposes that they should jointly take up some light study, such for example as the reading of Seneca's treatise "De Vitâ Beatâ," in order that they might compare their sentiments. The princess assents with zeal, and at once reads the book, and sends to Descartes her comments on it. Descartes responds, and so for a time they go on. By and bye, Descartes begins to be dissatisfied with Seneca: his arrangement is defective: his definitions are unsatisfactory: he does not go deep enough; in short, there breaks out the impulse of the original thinker—Descartes cannot subdue his mind to move along a track that others have marked out, he must make one of his own. He will himself write a treatise on "the Passions of the Soul," send it to Elizabeth in the form of letters, and she shall help him with her comments as he goes on. In this way there grew up a book which, some years afterwards, was published under this title.

We have not the letters as they were written, nor Elizabeth's comments, but we have the book, and here we come upon ground which—if I could suppose the reader and myself to have the leisure for it—is tempting to some obscure speculation. The "Passions of the Soul" include love and friendship. Can we—ought we to—read between the lines, so as to detect a personal application in what the philosopher thus wrote to the princess on these delicate themes? It was scarcely safe for either of them to write a word that might not be read by anybody. They were attached to one another, at least so far as enthusiastic admiration on the part of the disciple, and a tender and loyal friendship on the part of the master, could be said to constitute attachment: whether it was more than this, we do not know. There was

nothing in their ages, or in their circumstances, or even in their rank,—except a mere conventional prejudice,—to stand in the way of their attachment; but that prejudice was a strong one. Supposing—certainly it is a mere supposition—that Descartes were desirous of sounding the heart of Elizabeth, and this in a manner which, at the worst, even if not responded to, could not hurt his own self-respect, what more admirable vehicle for the purpose could have been devised than the correspondence which he now entered upon? It was a language which no one could understand but they two. On one occasion, at all events, as we shall see, Descartes did use such a cypher,—that is to say, did make philosophical phrases the vehicle for conveying personal advice in a matter so delicate that he could not speak straight out. Was this the only occasion?

I must own that a perusal of the book itself, in the form we have it now, does not enable us to answer this question with confidence. The letters are destroyed; the book was recast; it may be that the more personal passages have been suppressed. I can only note as significant the delicate, yet expressive, manner in which Descartes describes the state of transition between friendship and love, dwelling on the different kinds of attractiveness (*agrément*); marking as degrees the affection of a parent for his child, of persons of honour for their friends, of a lover for his mistress—though this last has some mixture of a warmer feeling; "for, with the difference of sex, nature has given to mankind certain impressions in the brain which occasion that, at a certain age and at certain times, we consider ourselves defective, and as it were only the half of a whole, of which one particular person of the other sex, and no one else, must be the other half." The

attraction which draws the soul to this other, produced by a sense of her inner correspondency, is more properly called love, he says, than that which is mere passion: "likewise, it has more strange effects, and it is this which supplies the principal material for romance-writers and poets."*

We cannot, he says a little later, love too strongly, if only we bestow our love on a worthy object. But what is a worthy object? This question he answers in an eloquent and manly passage: declaring, that not rank, however exalted, not wealth, not bodily and external advantages of any kind, constitute the worthiness we are in quest of; but the right use of a man's free will, the empire he has over his resolutions, manly courage to do that which is known to be right,—in short, a true nobility of the soul. The man who possesses this, he says, as he does not feel himself very much superior to those who are beneath him in rank, or wealth, or any other such external gifts, so does not feel himself very much inferior to those who in these respects stand before him.*

These, no doubt, are general truths; but if a mere gentleman were courting a princess, would he not be likely to use such language? Under all the circumstances, are we not justified in thinking that Elizabeth most likely understood him?

Now comes into prominence, however, another obstacle more serious than any difference of rank, namely, religion. In February, 1646, we find them still discussing the Passions of the Soul: but in March of the same year Elizabeth writes on a very different subject. Her

* 4 Œuvr., pp. 111-112. † Ib., pp. 151, 166-167.

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younger brother Edward has just been converted to the Catholic faith, and is to be rewarded by marriage with a princess, and passing at a bound from poverty to a position of wealth and dignity. The character of the young man was not such as to give even a pretext that his motives were respectable. He seems to have wearied of poverty, debts, and the cold looks of patrons: his family had had enough, he thought, of courting those who affected to favour the Protestant cause: a more liberal price was to be obtained, by a son of him who had been styled its head, for deserting it. So at least his action was construed by those of his own household. His mother, we are told, in her bitterness of spirit, wished her son dead. Elizabeth, after for a time bearing in silence a grief that preyed upon her health, wrote a letter to Descartes.

What she wrote, we can only conjecture from the reply. Very likely she did not even remember that her correspondent professed the Catholic faith: she did not know, we may be sure, that this faith, buried away in a region of his soul which the questioning intellect was not permitted to enter, burnt like a smouldering fire, fierce and strong though little seen. His reply was cold and dry. Her brother's action, he told her, would be approved by most who heard of it: even though there might be motives that were blameable, yet "we of the Catholic faith believe that God employs divers means to draw souls to himself, and many a man has entered a cloister from an evil motive, yet has lived a holy life there." Those who blame her brother should reflect that they themselves are only Protestants because they, or their fathers, or their grandfathers, have abandoned the religion they were born in,—that is, have done the very

same thing. As a matter of prudence, those whom fortune has smiled on may do well to hold all together; but when she frowns, it is wiser to scatter and follow different paths, so that some at least may escape, and perhaps friends may be made amongst all parties. "I do not expect," he concludes, "that my reasons can abate your highness' resentment: I can but hope time will have diminished it ere this letter reaches you." And then he calmly continues an interrupted discussion on the subject of free will.*

To Elizabeth, one of a family living on proud memories and aspiring hopes, this advice to them to disperse and fly on separate paths; this condoning and even lauding an action which shamed her as a baseness in her own blood; this placing on the same level our grandfathers' revolt from what they deemed in their consciences a degrading superstition,—a revolt they maintained with their swords, or sealed with their blood,—and the relapse to it of their grandchildren, one by one, as their courage fails them or the bribe is tempting; must have been galling, from whatever source it had proceeded; but, coming from Descartes, whom at the lowest she loved as a friend and idolized as a teacher, it must have been almost bitterer than the event which had called it forth. That he should have thus written must either greatly lower our opinion of Descartes, or convince us that he himself had, for some cause we can only conjecture, been deeply wounded by Elizabeth's letter.

However, a few months later, he has finished the "Treatise on the Passions of the Soul," and he sends the completed manuscript to Elizabeth, who receives it

* 9 Œuvr., p. 371.

kindly, and thanks him for it in a manner which touched him. His reply contains, embedded indeed, and as it were skilfully hidden, in matter of more general import, this significant passage: "Though desire almost always exists in company with love, yet not always in the same degree; for, though we may love much, we desire but little when we conceive no hope."*

Within a few weeks, or perhaps days, of the time when this letter was written, an event occurred, the motives and circumstances of which are shrouded in so complete a mystery, that we really know next to nothing about it, except that in consequence of it all personal intercourse between Descartes and Elizabeth was suddenly and for ever brought to an end.

Prince Philip, one of Elizabeth's younger brothers, by way of revenge for some public affront offered him by the Sieur d'Epinay, "a young officer," we are told, "notorious for libertinism and gallantry," instead of meeting his enemy in fair combat, one morning, accompanied by several armed men, attacked the unguarded culprit in the market-place of the Hague, and put him to death; himself escaping across the frontier in the confusion. Elizabeth, shortly if not immediately afterwards, and notoriously in consequence of this occurrence, left her mother's roof at the Hague, and took up her abode in Germany, where her elder brother was then living. Upon these facts have been founded various surmises, all more or less reflecting on Elizabeth. The affront which was thus bloodily avenged had reference, it is believed, to her. She has even been suspected of having instigated or connived at the crime, and it is said that she was

* 9 Œuvr., pp. 378-381.

obliged to leave her home on account of the indignation her conduct had aroused in her mother's mind. All this appears to be mere surmise. Passionate and capable of vindictiveness she probably was, as may be inferred from some gently-insinuated counsels we find here and there in Descartes' letters; but it is impossible to associate the lofty character of the young princess, long tried by misfortune, yet preserving under it her equable and cheerful temper, with the mingled ferocity and meanness of her brother's act.

Descartes wrote to her upon this occasion a letter, the real purpose of which is believed to have been, to urge her not to hesitate in her resolution to quit the Hague. I give it almost in full, as it may serve as the key to the cypher probably used in their correspondence. He counsels decisive action in a particular emergency, under the disguise of a general doctrine, as if growing out of their old discussions concerning the passions of the soul.

"Madam,"—he begins,—"The opportunity I have of giving this letter to M. de Beclin, who is my intimate friend, and in whom I trust as much as myself, occasions me to confess a very material fault I have made in the Treatise of the Passions, namely that, in order to flatter my own procrastination, I have placed among those feelings which are excusable, a certain languor which sometimes hinders us from putting into prompt execution the things which have been approved by our judgment. I remember that your highness particularly remarked on that passage. It is no doubt very right to be deliberate in determining matters of importance; but, when once we have made up our mind on the main point, when the affair is launched, there ought to be no delay over mere circumstances and details. . . . Resolution and

promptitude are very necessary for undertakings once begun. It is idle to fear some unknown consequences: results unknown and feared often turn out better than the things we have wished for. . . . I feel sure your highness quite understands my thoughts, though I express myself ill, and you will pardon the extreme zeal which constrains me to write thus."*

Before Elizabeth left the Hague, she made arrangements by which Descartes could still write to her, under cover to her sister Sophia, an office which that amiable young lady, we are told, undertook with pleasure.† The correspondence, and the loyal friendship of Descartes, were continued during the remainder of his life: but the two never saw each other again. Elizabeth was unable to remain long an inmate of her brother's house. Louis and his wife quarrelled violently, and Elizabeth taking the side of the wife, who appears to have been very much wronged, quitted her new home, and from that time lived in obscurity, and, we are led to believe, in extreme poverty. Her mother had long ago pawned her jewels, and was deep in debt, and powerless to help her. Her English relatives were fugitives; her uncle was beheaded. The only member of her family who could have aided her was this worthless elder brother, who when friendly had been extremely ingenious in pretexts for doing next to nothing to help his family, and with whom she had now quarrelled. We are left to suppose that Elizabeth had to live upon her friends as best she might. Eventually an asylum was opened to her, of which she gratefully and joyfully availed herself. She became abbess of the Lutheran

* 9 Œuvr., pp. 385-387.

† Ib., pp. 387-407, *in not.*

abbey of Hervorden, in Westphalia. Penn, who visited her there long after, writes of her: "Her patience, justice, and mercy, are admirable: she spreads the tables of the poor in their solitary cells, breaking bread to virtuous pilgrims; abstemious herself, and in apparel void of all vain ornaments." On her invitation, Anna Schurmans, like herself an old friend of Descartes, took up her abode in the abbey; and we learn without surprise that the name of Descartes was often uttered, and his memory held in honour, within its walls. Elizabeth died in 1680, having survived Descartes by thirty years.

§ 8. Termination of the Stay in Holland.

The six years (1640-1646) of Descartes's personal intercourse with Elizabeth were probably likewise those of his greatest literary and scientific activity. The publication of the "Meditations" lifted him at once into celebrity. He became the founder of a school. The name of Cartesian very quickly came into use, and for some time afterwards was synonymous with that of an advanced or liberal thinker in philosophy. The renown which is implied in this fact was not to be obtained without cost. It involved at once an enormous correspondence. The least of his labours, that of inventing phrases in which with becoming modesty to reply to the compliments that poured in upon him from all quarters, can have been by no means a light one. Compliments were blended with criticisms or questionings: this involved controversy: and controversy has a terrible tendency to expand, and grow, and warm itself into a heat.

There is something almost pathetic in the forebodings which Descartes had uttered in the last chapter of his

"Discours de la Méthode." He feared publication: not, as poor unknown authors do now, lest it should mean neglect, and mortified vanity, and a publisher's account with a balance on the wrong side, but on the contrary, because he foresaw that the interruptions and controversies it would occasion would destroy his leisure, and prevent his continued progress in the research and discovery of truth. That was precisely what took place. In philosophy, it may with accuracy be said that Descartes, after the publication of the "Meditations," did nothing further.

And yet, if we are to measure the value of a book by the number of pages it covers, by the largeness or as we may say grandeur of its design, by the extent of its research, the polish and condensation of its language, or indeed by any other test than that of the quantity of new truth it contains, the "Principia Philosophiæ," published in 1644, must be pronounced a great step in advance upon the "Meditations." In this work, Descartes proposes to himself, first to place in a clear and methodical arrangement, and to express more concisely, all those general principles, that First Philosophy, which are set forth flowingly, and as it were so as they first came into his head, in the "Meditations;" and then to exhibit those principles in actual operation, by applying them, with the aid of observation and experiment so far as these are available, successively to the several departments of human science. In pursuance of this plan, the "Principia" is divided into four Parts. The first part treats of "the principles of human knowledge;" and is in fact simply a recasting of the "Meditations,"—turning it from the analytic or natural order of pursuing truth, of which the "Meditations" furnish a beautiful

example, to the synthetic or expository order. The advantages of such a translation correspond to the advantages of converting grass into hay, — it becomes more compact and portable, but somewhat less succulent. The second part deals with "the principles of material things:" it consists of an expansion and application of the doctrine, that the essence of body or matter is simply extension. In it are discussed the topics of substance, space, place, motion (and herein of the primary laws of mechanics), and the laws of fluid and solid bodies, and, generally, the first principles of physics or natural philosophy. Thus the second part constitutes the transition from philosophy to natural science. The third part treats of "the world that is seen from afar" (*De mundo adspectabili*), that is to say of the starry and planetary systems. Here for the first time Descartes ventures on the ticklish ground of the earth's movement; and, after a cautious preamble, paving the way for his conclusion by a series of forcible arguments, at length distinctly announces his adhesion to the "hypotheses" of Copernicus and Tycho Brahe,—for he does not name Galileo. The fourth part descends to the earth, and may be styled a sort of cyclopædia of physical science, such as it existed in the middle of the seventeenth century,—and a curious transitionary work it is; in form and general scope reminding us on the one side of Lucretius and on the other of Newton and modern science; hypothesis and abstract speculation on the one hand, and observation and experiment on the other, struggling as it were for the dominant place,—as forces not yet completely subdued to pull together under the same yoke. Without further comparing the two works, it may suffice here to say that, our business being, not with physical science

but with philosophy only, we have in the "Meditations" the whole of the philosophy that is to be found in the "Principia," and we have it in a fresher and more attractive form.

The amount of hard work represented by the "Principia" must have been immense, and no doubt the largest portion of it, particularly the experimental, must have taken place during the four years between 1640 and 1644: by no means the whole, however, since in this volume we have, in its matured form, most if not all of that which, as we have seen, he had been labouring at for years, in his interrupted treatise, "Le Monde," which, from almost the beginning of his stay in Holland, had been designed as the complement and practical application of the principles laid down in the "Meditations."

In addition to these two threads—if I may call them so—in the skein of Descartes' inner life during these six years,—that is to say, to his purely literary labours and to his correspondence and intercourse with the Princess Elizabeth, there was a third, which runs through the entire course of these years, and which was at last, if not the occasion, at least the pretext, of his finally quitting Holland, after a sojourn in this hospitable land of about twenty years. This was, his controversies, and what has been somewhat incorrectly styled, his persecutions,—the latter springing entirely from the former. These are not altogether without interest, though I must touch on them very briefly.

It has been already mentioned that, amongst Descartes' most intimate friends in Holland were some of the professors of the then recently established University of Utrecht. The Professor of Philosophy there, Heinrich Reneri, was a disciple and especial friend of Descartes:

they had in 1633 lived for some time in close neighbourhood, if not in the same house, at Deventer, and Reneri had imbibed from the master the principles of Cartesianism, which he promulgated from his chair with an ardour and eloquence, little pleasing, apparently, to the adherents of the still orthodox Scholasticism. Reneri died suddenly in 1639, on the day of his wedding: and his memory was honoured by the senate of the town and university with a public funeral. On this occasion, Aemilius, Professor of History and Rhetoric, delivered the funeral address; and, being himself one of Descartes' friends and admirers, took occasion to blend with his praises of the deceased some expressions relative to Descartes, which not unjustly gave offence, as being overdrawn. He styled him "the only Atlas and Archimedes of our age." Unfortunately for Descartes, this hyperbole, instead of being laughed at and forgotten as it deserved, raised him up an enemy, and a very troublesome one.

There was in Utrecht one Voet, or Voetius, a pastor of the Reformed Church, a preacher of some eloquence, and a pamphleteer of vigour and fluency. He was a man who had considerable influence over persons of both sexes,—not very learned, not at all original, but possessor of a faculty for so seasoning commonplaces as to draw tears from the impressionable, and conviction from those who do not think for themselves,—that is to say, from the vast majority of hearers and readers. Strange to say, this man, totally incompetent, no doubt, to measure the interval which separated a Descartes from himself, felt his vanity wounded by praises which seemed to set the philosopher above him. His revenge was, a pamphlet and a few whispers in drawing-rooms.

Descartes' "doubt" was now celebrated. A doubter

must be a sceptic: a sceptic is of course an atheist in disguise. It began to be whispered about, no one knew how, that the tendency of the new philosophy was atheistic. Whilst pious persons are scandalized and perplexed by such rumours, Voet takes the opportunity to publish a pamphlet, or the seventeenth century equivalent for one, under the title of "Theses on Atheism." In this production Descartes is not mentioned by name, but the traits of atheism are so adroitly connected with the peculiar doctrines of the new philosophy that there is no mistaking the author's drift.

The worthy pastor followed up his attack (in 1640) by another little device, which was not quite so judiciously planned. It seems to have occurred to him that his position would be strengthened if he could induce some more or less distinguished person, from a distance if possible, to assail Descartes, on grounds similar to his own, but so that it should appear to be an undesigned coincidence, a perfectly independent and separate testimony to the pernicious character of the new doctrine. He had heard of one Father Mersenne, a learned Jesuit in Paris, as taking an interest in such speculations, and he did not know how loyal a friend Mersenne was to Descartes. To Mersenne, accordingly, he wrote. The letter has been preserved, and it certainly does credit to the writer's ability. He begins by endeavouring to touch the jealousy of his reader, by recounting the popularity of Descartes amongst his disciples. "There are some," he says, "who admire and adore him, as if he were some new God dropped down from heaven." Then he urges Mersenne to take him in hand, castigate and refute him; nor does he abstain from flattery. "There is no physicist or metaphysician," he says, "who could more successfully overthrow him than

you could; you, who excel in just those parts of science in which he deems himself strongest, namely, geometry and optics. This task is worthy of your learning and acuteness; you have already been a defender of the truth, and have known how to reconcile theology with metaphysics and with natural science." With more of the same sort. It must have been gratifying to the Jesuit, in those days when religious differences ran high, to be complimented by a Protestant divine as a defender of religious truth. He however played with the bait. He was willing enough, he answered, to write against the opinions of Descartes, in case there were solid reasons for impugning them, and to that end begged Voet to furnish him with any objections which had occurred to him, or which he could gather from others. Here the matter ended: perhaps Voet scented mischief, or had meantime heard more concerning Mersenne, for he did not reply. Mersenne sent Voet's letter to Descartes, who, after reading it, sealed it up and returned it to its author.*

In justice to Voet, it ought to be stated that it was not merely the injudicious speech of Aemilius which had irritated him against Descartes, but there was a good deal more of the same kind, no doubt hard for him to bear. Another unwisely enthusiastic admirer of Descartes was the Professor of Botany and Theoretical Medicine at the same University, Le Roy, or Regius, a young man able, ardent, daring, a little paradoxical, an aspirant, it was thought, to the chair and to the reputation of Reneri. This professor was so possessed with the new philosophy that it overflowed into and no doubt enlivened his lectures on botany and medical science; the lectures became

* 9 Œuvr., pp. 254-257.

very popular; the doctrine of Descartes was here presented in its most extreme form, and its effect was heightened by vigorous denunciation and ridicule of the old scholasticism.

The following year (1641) Voët was appointed, or became by rotation, Rector of the University. In this capacity, it was his duty to preside at a series of lectures delivered by Le Roy, with whom he was at this time ostensibly on friendly terms. This gave him the opportunity of inflicting on Le Roy, and through him indirectly on Descartes, a public affront, the result of which was to bring on an open war. The thing itself is petty enough, and a little difficult to explain without an expenditure of words out of proportion to its importance. After reading the "Meditations," the reader will be able to understand that the weak point in Descartes' system was, its not explaining, or even properly leaving room for, the union of mind and body in one person; a mystery no doubt on almost any view, but one aggravated almost to an impossibility by the Cartesian doctrine, that the essence of mind is Thinking, while that of matter is Extension. How can a thinking substance be united to an extended substance so that the two shall compose one Person? What possible community of nature is there between extension and thought? This was the problem which the critics of Descartes, the friendly no less than the unfriendly, proposed to him: this was the first question the Princess Elizabeth had put to him: it was this which he attempted to solve in his "Treatise on the Passions of the Soul:" it proved beyond his powers: the dualism of his system remained, and remains to this day, its fatal blemish. But the problem which perplexed the philosopher himself was gaily solved, to their own satisfaction,

by some of his disciples: at any rate, by Le Roy. The combination of body and soul (or mind) was a mere accidental one: a series of temporary coincidences: it so happened, or was so ordained by Providence, that the thought of the mind—for example, the resolution to lift the arm—was followed by the movement of the bodily organism. Man, in short, was one by accident,—*unum per accidens*. Such was the paradoxical solution which pleased Le Roy. It was not approved by Descartes himself, who advised Le Roy not to promulgate a doctrine so certain to give offence;* but Le Roy was young and confident, and paid no heed to the advice. The story goes,—we are to bear in mind, however, that it is the story told by Descartes, and in the heat of impassioned controversy,—that Le Roy imparted to the rector the line of argument he was about to bring forward in his lecture, was egged on and encouraged to it, and secretly plotted against before the lecture came on: but, be this as it may, so it was that when Le Roy had set forth his paradox, and had uttered the phrase *unum per accidens*, there was amongst his youthful audience, first, a short silence, then an outburst of ironical cheering, so general, sudden, and simultaneous, as to prove that the insult to the professor had been premeditated. The rector made no effort to quiet the disturbance, but sat in his chair impassive, as if approving and sanctioning the ridicule thus cast by a set of college students upon their professor.†

Hereupon followed open war. Voet published theses, condemnatory of the new doctrine. Le Roy wrote a vindication. The matter was brought before the Senate of

* 8 Œuvr., p. 576.

† 11 Œuvr., pp. 31-32.

the University. The Senate, under the influence of their rector, issued a judgment, to the effect: that they reject and condemn this new philosophy, as contrary to the old sound doctrine heretofore taught in all schools of the world; as turning away the minds of youths from the study of the older philosophy, and even incapacitating them from understanding its terms; and as leading the young and undiscerning to conclusions contrary to sound doctrine in religion: wherefore they enjoin and decree that this new philosophy be no more taught in our University.*

Descartes then, unfortunately for his own peace of mind, yet perhaps inevitably, broke the silence he had heretofore kept. It was a wise instinct that had up to this time held him aloof from controversy, and bade him, when insulted, "lift his soul so high that he should not feel it." He felt too keenly, smote too hard, and hurt himself too much by his own vehemence, to be a good controversialist. I do not think he had much sense of humour. He was too strenuous, slow, persistent in what he undertook, to be able to give his enemy a caning, throw away the stick, laugh, and have done with it. He was slow of entering on a quarrel; but his anger gathered force with time, and never left off; for there was nothing personal in it, it was a cold, not scornful, but melancholy, righteous indignation. The conduct of Voet struck him as something shameful and repulsive: the longer he thought of it, the worse, the more outrageous, it seemed to grow: and this solitary and brooding mind, accustomed to anatomize and as it were examine through a microscope, thought of it a great deal more and longer

* 9 Œuvr., pp. 45-46.

than it deserved. After all, what was the decree of a Senate of a University of Utrecht? Descartes had all Europe for his auditory, and there was not a seat of learning but was penetrated by the new doctrine. He might have laughed good-naturedly at the wiseacres of Utrecht, who thought to extinguish the sound of a waterfall by shutting their own ears. But Descartes was hurt, and took the matter seriously.

He began, however, not otherwise than temperately. In a letter addressed to the reverend Father Dinet, Provincial of the Jesuits, dated 1642, he takes occasion to give a somewhat sarcastic character of Voet, and a description, in a tone rather of quiet scorn than invective, of the insult offered through his friend to himself. The severest thing he says of Voet would scarcely at the present day be regarded as libellous. "A man who passes in the world as a theologian, having, by vigorous abuse of all who differ from him, in a style of broad humour, which takes the ear of the vulgar, gained credit for an ardent zeal for religion; and who likewise, by continually putting out little pamphlets—though not worth reading, and citing many authors—though these so often make against him, that 'tis likely he knows them only from the table of contents, and by speaking with great confidence, though very much at random, concerning every branch of knowledge, passes for learned amongst the ignorant."* But Voet was an important personage, and the rector of a university. Too dignified to reply in his own person, the measures he took were, secretly to hire one Schoock to write a scurrilous pamphlet against Descartes, and, for his own public part, to take proceedings against Descartes in the courts of justice for defamation of character.

* 9 Œuvr., pp. 34-35.

The first step was a citation. This took place on the 13th June, 1643. Descartes was solemnly summoned to appear before the Courts of Utrecht. The citation was read forth in the market-place, publicly, to the sound of a bell, presumably by the town-crier: it was printed, stamped, issued. Descartes, very likely unfamiliar with the forms of law, regarded all this as an affront. His place of residence was known: he was not a fugitive: why all this publicity and formality? The affront was retorted by contempt. Descartes was a French subject, not even dwelling at that time within the Province of Utrecht. He believed himself to be beyond the jurisdiction of these magistrates, and let the matter go by default. It naturally went against him. Still he took no notice. Some little time afterwards he was alarmed by threatening warnings: his letter to Dinet had been adjudged a libel, and condemned to be burnt by the hangman, and Voet had made arrangements with this personage that the pile should be raised high enough for the flames to be seen for miles round: as for Descartes himself, there were treaties amongst the Provinces of Holland for the reciprocal surrender of offenders, so that his plea of want of jurisdiction would not avail him, and his contumacy exposed him to the risk of arrest and perhaps imprisonment. Now he takes alarm: betakes himself to the Hague; places himself under the protection of the French ambassador there, and tells him the story. The ambassador quickly composes the quarrel. The magistrates were convinced, on the confession of Schoock, that his pamphlet, the scurrility of which had more than avenged any wounds the self-esteem of Voet might have suffered at the hands of Descartes, had been secretly dictated by Voet himself. They therefore (June

11, 1645) issued a decree, the fairness and good sense of which can scarcely be questioned, imposing silence henceforward, concerning the matter in dispute, both on Descartes and his opponents. No pamphlets were to be issued, or printed, or sold—so ran the order—either for or against Descartes.*

The command was obeyed by neither party. On Voet's side envenomed pamphlets continued to be issued. Descartes amply vindicated himself, and discharged his slowly accumulating indignation, in two letters, one addressed to the magistrates of Utrecht, the other, with ironical respect, "*Ad celeberrimum virum, Gisbertum Voetium.*" This last in particular is a fine piece of grave, severe invective, plain spoken to a degree truly shocking, a thing to make both ears of its victim tingle; yet from which the admirers of Descartes turn away their eyes, by no means out of compassion for Voet, but from pure regret that such powers should be wasted on so poor a thing. The magistrates were judiciously deaf to all, and so the matter ended. Descartes was dissatisfied with their decree and their silence, and nursed a smouldering displeasure. But we have no right to call their conduct persecution, and certainly no reason whatever for saying that it was a persecution which drove Descartes out of Holland. In fact it was not till two years later, that is to say not till about a year after the Princess Elizabeth left that country, that we find indications of a purpose, forming itself in the mind of Descartes, to quit the land which had given him an asylum for twenty years.

In June, 1647, Descartes addressed himself to the "Curators of the Academy and the Consuls of the Town

* 9 Œuvr., p. 275.

of Leyden," complaining that two professors of the Academy had, in their lectures, publicly attributed to him doctrines which he had never held, and which were calculated to bring him into ridicule. Descartes, says one of them, makes out that free-will is greater than God himself. Descartes, says the other, speaks of God as an impostor and deceiver. The authorities thus appealed to took the matter up at once, and, having before them, as they supposed, an admirable precedent in the decree of the magistrates of Utrecht, thought to satisfy all parties by enjoining a mutual silence; a decision which they communicated to Descartes with the air of persons who announce a favour they are bestowing. "We at once," they say in their reply, "appointed a day for the Rector of the Academy, and the Professors in Theology and Philosophy, and also the Rectors of the College of Theology, to appear before us; and we expressly forbade all and each of them to make any mention of you or your opinions in their lectures, disputations, or other academical exercises, and have ordered them to keep absolute silence thereon: wherein, having satisfied, as we believe, your desire, we doubt not you on your side will conform to ours. We therefore beg you also to the utmost of your power to abstain from further speaking of and agitating this question, which you say has been impugned by the professors of our academy, for fear of the inconveniences which may ensue."*

This was certainly very exasperating, or very amusing, just as one chooses to take it. It is indeed not quite clear what advantage Descartes expected to derive from his appeal to the authorities, or what result he could have

* 10 Œuvr., p. 26.

hoped for. But, waiving that point, when one complains of a gross injustice done one, it is not quite satisfactory to be told that the authorities impose silence on the subject, and show their impartiality by imposing it on the wrongdoer as well as the sufferer; nor yet to have it treated as a grave matter of controversy, whether you have or have not been guilty of the absurdities which are unjustifiably attributed to you. The heavy official Bumbledom of the procedure has likewise its comic side. Descartes did not see the humour of it, and was very angry,—to a degree, indeed, indicative rather of a morbidly irritable state of nerves than of the philosophic calm. He discharged on the good curators a terrible philippic. What he had complained of, he said, was not that their professors had discussed his opinions,—they might discuss them to their hearts' content,—but, that they had grossly libelled and misrepresented his opinions, twisting them into blasphemy and absurdity. Forbid discussion! Discussion, if there was anything to discuss, was what he of all things wished for: nay, he insisted on it, if only to display to all the world the stupid malice of their professors. Was it thus they treated strangers in their land,—to let them be maligned without obstruction, and, if they ventured to complain, to stop their mouths and not even let them vindicate themselves? His wrath, kindled by his own words, rose so high that he even dictated terms of apology, and declared he would not be content with "one grain less." The phlegmatic Dutchmen, finding their overtures of civility, as they no doubt thought them, received in this spirit, took no further notice of the matter.*

* 10 Œuvr., pp. 29-39.

A few days later, Descartes writes to Princess Elizabeth, complaining of this treatment, and declaring that he means to obtain full satisfaction both for these injuries and those of Utrecht; failing which, he will quit the Provinces once for all. "If I cannot obtain justice, my best plan will be to prepare quietly for a retreat; but, whatever I may think or do, or wherever in the world I may go to, nothing will ever be more dear to me than to obey your commands, and testify my zeal in your service."*

§ 9. Stockholm.

Christina, daughter of the great Gustavus Adolphus, had been Queen of Sweden since she was seven years old. She was now (1647) one-and-twenty. She seems to have inherited from her father, not precisely his genius, but those large and restless aspirations, that scorn for conventional ways and restraints, that vague striving after a greatness and a contentment worthless if not wrought entirely from within oneself, which may be termed the atmosphere or temperament of genius,—not the power itself, but the conditions which partly stimulate, partly are engendered by, the working of the power. It is not perhaps a very uncommon case for this temperament to be handed down to a son or a daughter, without the power: and then it is, almost necessarily, like everything greatly disproportionate, a curse. And such it was to Christina.

Gifted with almost every advantage of nature, intellect, and fortune, she despised them all, and by turns threw them from her, poisoned by a discontent which had no

* 10 Œuvr., p. 44.

assignable source. She was young and handsome,—she disdained feminine adornment of every kind, and by preference, whenever she could, adopted male costume. She was surrounded by suitors, and was by temperament, as she tells us, "very amorous;" yet she rejected them all, and lived a life of celibacy, which, at least in the period we have to deal with, was not merely affected. She had a great capacity for state affairs: from early girlhood she had herself personally administered, and with high success, the concerns of her kingdom: and it was she who, in 1648, took the leading part in the negotiations which terminated in the Treaty of Westphalia, that pacification of Europe which closed the Thirty Years' War. Yet, only a few years later, in 1654, whilst still hardly more than a girl, she disappointed the hopes of a people then loyally attached to her, by abdicating her throne, absolutely for no other reason than because its duties were irksome, and she would be freer to go about the world in male attire and play the learned woman and the *esprit fort* as a private resident in France. She lived, in short, as though her object was to show her contempt for everything in life which others strive or wish for.

It was at the zenith of her power, and before the evil genius within her had begun to exhibit its presence, unless by certain even attractive eccentricities which were regarded as the mere crudities of immaturity, that Christina and Descartes became personally known to one another.

Shortly after writing to the Princess Elizabeth the letter I have just referred to, Descartes left the Netherlands to pay a visit to Paris, and did not return until the following September. On this occasion he made the acquaintance of Pascal, already a man of some note as a

mathematician. It is said, though the point has been controverted, that it was a conversation with Descartes that suggested to Pascal the well-known experiments which led to the use of the barometer as a means of measuring the height of mountains. Descartes found friends and admirers in Paris who had influence at Court, and received the promise of a pension from the Crown, together with pressing invitations to take up his abode in Paris. These invitations were renewed in the following March, when the patent of his pension was sent to him, with prospects of a larger pension, or some place under the Crown that should not interfere with the leisure needed for his studies, should he resolve to return permanently to his native country. With these expectations he returned in May, 1648, to Paris.

But when he reached the capital, he found it in an uproar. The streets were barricaded. The insurrection of the Fronde had broken out. It was no time to talk of pensions or appointments: on the contrary, he learnt that, in order to obtain that pension which had been promised him already, his friends had expended, in bribes probably to some mistress or court favourite, a large sum of money, which Descartes felt bound in honour to refund; so that, as he remarks with a grim humour, "a sheet of parchment, with some very handsome seals, was the dearest and most useless purchase I ever made." He returned to Holland, disappointed and no doubt unsettled.

During the winter of 1647-8, that is to say between these two visits to Paris, Descartes writes to Elizabeth, telling her of the offered pension, though that, he said, would not induce him to remain in France; "but," he adds, "many things may happen in a year; though

nothing could happen that would prevent my preferring the happiness of living at the place where your highness may be, should the occasion offer itself, to that of being in my own country, or in any other place whatsoever."*

Amongst the friends whose intimacy Descartes renewed on the occasion of these visits to Paris, was a young advocate named Claude Clerselier, and his brother-in-law, Pierre Chanut. We are informed that their friendship dated from 1644, in which year Descartes had spent a short time in Paris. Clerselier translated the "Meditations" into French, under the partial revision of Descartes himself; and, after Descartes' death, became his literary executor, and the publisher of his posthumous works. Chanut, who had held some government appointment in Auvergne when Descartes first knew him, was, in 1645, appointed Minister at the Court of Christina of Sweden. On his journey to Stockholm he had taken his way through Amsterdam, where he spent several days in the company of Descartes, who had come over from Egmont, where he then resided, purposely to welcome him. There was a cordial and strong friendship between the two. "From the first hour of our acquaintance," writes Descartes to him in 1646, "I have been entirely yours, and I beg you to believe that I could not more wholly belong to you (*je ne vous pourrais être plus acquis*), had I passed all my life in your company."† The friends carried on a correspondence, of which the letters between 1646 and 1648 have been preserved. Chanut, when in Stockholm, re-read the "Principia,"

* 10 Œuvr., p. 122. See also a letter of July, 1647, where he speaks of his desire to return to the places where he had been so happy as to talk with her. (Ib., pp. 57, 59.)

† 9 Œuvr., p. 417.

and Descartes is greedy for his criticisms. Before long we find that Chanut has been talking about Descartes to Christina. He writes to Clerselier in Paris to send him a copy of the "Meditations," to present to the queen. Christina is interested, and bids Chanut ask his friend's opinion on one or two questions that appear to have been started in conversation, such as, What is the true nature of love? Whether the light of reason teaches us to love God? Which of the two is the worse—excess in love, or excess in hatred? These questions Descartes gravely discusses, in a letter which bears the date of 1647. There is a curious passage in this letter, which I will transcribe: doubtful whether the author is thinking entirely of Chanut and Christina, or a little also of himself and Elizabeth:—

"The usage of our language, and the civility of compliments, do not allow of our saying to those who are of a condition very much above our own, that we love them, but only that we respect, honour, or esteem them, or have a zeal or devotion to their service. The reason is, I think, that the friendship of man for man renders those in whom it is reciprocal in a manner each others' equals; and hence, while we try to make ourselves beloved by some great person, if we were to say we love him, he might think we are treating him as our equal, and so doing him wrong. But I know no other definition of love, but that it is a passion which makes us joined in will to some object, without distinguishing whether this object is equal, or greater, or less than ourselves. . . . And, were I to ask you on your conscience whether you do not love this great queen whom you are at present near to, it would be to little purpose for you to tell me you feel for her only respect, veneration, or admiring wonder; I should judge for all that that you have also a very ardent affection, for your pen runs so well, when you speak of her, that, though I believe all you say, knowing you to be very sincere, nevertheless I do not believe that you could describe her as you do if you had not very much zeal,

or that you could be near so great a light without catching some warmth."*

Christina now sets herself in earnest upon reading the "Meditations," and, as she finds things in them hard to understand, requires Chanut to devote some hours regularly every day to the task of explaining; "so that I find," says Chanut gaily, "it has become one of the functions of the Resident of the King of France to interpret Descartes to Her Majesty."† Presently, Descartes is desired to write direct to Christina, to give her his sentiments touching the *summum bonum*.‡ Later, in November, 1647, Descartes is so far advanced in his intimacy that he writes out for the queen—with difficulty decyphering the rough draft he had sketched some years before—a copy of the letters forming the treatise on the "Passions of the Soul," which he had composed for the use of Princess Elizabeth.§ He sends this through Chanut, adding in his letter, which certainly was meant for the queen to read, "If I could have ventured to join to it the answers which I have had the honour of receiving from the princess to whom these letters were addressed, the collection would have been more complete, and I might also have added two or three of mine which are not intelligible without them; but I should have had to ask her permission, and she is now very far from this place."‖

Independently of any personal gratification Descartes may have felt from the interest he had excited in the mind of a young queen, whose picture, as drawn by the enthusiastic pen of Chanut, appears to have touched his

* 10 Œuvr., pp. 14-15.
† 1 Fisch., Hist. Phil., p. 265.
‡ 10 Œuvr., p. 59.
§ Ib., p. 69.
‖ Ib., p. 66.

imagination, there was another motive which induced him to court her favour, namely, to interest her in, and perhaps obtain her protection for, that unhappy princess for whom he entertained so constant an affection. Christina's father had been the powerful champion of the father of Elizabeth. It was to Christina, as now the head of the Protestant cause in Europe, that the children of her father's friend, who had lost their all for that cause, might naturally look for countenance and aid. What Descartes thought on this subject is plainly shown in his letters to Elizabeth. Writing to her in June, 1647, he says:—

"I have lately received a letter from Sweden, from the Resident of France there, . . . and the manner in which he describes this queen, with the speeches of hers he reports to me, makes me so esteem her, that it seems to me that you and she would be worthy of one another's intimacy; that there are so few persons in the rest of the world who are worthy of it, that it would not be difficult for your highness to form a very close friendship with her; and that, besides the mental satisfaction you might have from it, this might be desirable for several considerations. I have already written to my friend, the Resident for Sweden, in answering a letter in which he spoke of her, that I found no difficulty in believing what he said, because the honour I have of knowing your highness has taught me how much persons of great birth might surpass others, &c. . . . and, as it is probable that he will henceforth show her the letters he receives from me, I shall endeavour always to insert in them something which will lead her to wish for your highnesses's friendship—unless you forbid me to do so."*

Again, on the 20th November of the same year, after telling her that the queen had desired him to write another letter to her direct, he proceeds to describe the manner in which he proposed to bring Elizabeth's name

* 10 Œuvr., pp. 55-56.

under the notice of the queen in a more direct manner, by means of the letters or treatise on the "Passions of the Soul," which he thought of sending to Christina. Chanut, he adds, had responded but briefly to what he had written concerning Elizabeth, possibly, as Descartes suspected, from some scruple or doubt in his mind as to whether he should be pleasing those of whom he was the envoy, *i.e.*, the French Government. "But," he adds, "if henceforward I shall have the opportunity of writing to herself, I shall need no interpreter; and the object I have now had in sending her these writings is, to induce her to occupy herself with the thoughts they convey, so that, if they please her, as I trust they will, she may seek occasion to confer about them with your highness."* These hopes, however, were doomed to disappointment. It was apparently not Chanut, but Christina herself, who was the cause that Descartes' good offices on behalf of Elizabeth were calmly ignored. At a later period, Descartes induced Elizabeth to write a letter to Christina, which she was unfeeling enough to leave unanswered. We are to remember that Christina's character was at present known to Descartes only through the flattering medium of Chanut.

On the 20th February, 1649, Descartes wrote to Elizabeth a feeling letter of condolence on the tragic end of her uncle, our Charles the First. He expresses surprise at learning that Elizabeth's letter to Christina had remained for four months unanswered, but supposes the delay arises from the queen's being much occupied with State affairs. He also remarks it as singular that Christina, in writing to him concerning the letters on the Pas-

* 10 Œuvr., pp. 67-70.

sions, had made no allusion whatever to Elizabeth, for which he throws out ingenious theoretical excuses. He speaks hopefully of Elizabeth's prospects of again returning to the Palatinate; praises the beauty of that region; and adds that, for himself, he was attached to no spot in particular, and cared not whither he went, so he might only find repose; "but," he adds, "there is no dwelling-place in the world so rude or so inconvenient, but I should esteem myself happy to spend the rest of my days there, if your highness were there, and if I were capable of rendering you any service."*

In the same month there comes to Descartes a pressing invitation from Christina, through Chanut, to pay her a visit at Stockholm. She desires to see him, and to hear more of his philosophy, which has become an absorbing study with her, from his own mouth. A second still more urgent letter to the same effect reaches him in March. This urgency appeared very likely more flattering to Descartes than it does to us, who know, what he probably at that time did not, that it was one of the foibles of this singular woman to play the Mæcenas to distinguished men of letters, musicians, painters, artists of every kind, and to attract and retain them round her Court at Stockholm. There are some amusing anecdotes of her eagerness in matters of this kind, which however are too well known for me to venture to repeat them here. Besides, my story hastens to its close.

Descartes hesitated. It was as though a foreboding kept him back from that fatal land. He would not stir until he had consulted the wishes, or as he styled it received the commands, of the friend to whom, in the deep

* Œuvr., pp. 301-302.

dejection of her fortunes, he remained loyally attached, and who, he tells her, "has no less power over me than if I had all my life been one of her servants."* One reason for determining him at last in favour of the journey unquestionably was the hope that his personal advocacy might be serviceable to Elizabeth's interests.† He had always, too, of necessity, been careful of his health, and a seeker of genial climates, and "You must not wonder," he writes to Chanut, "if a man born in the garden of Touraine hesitates to venture himself in a land of bears, and rocks, and ice." So he lingers on till June. But the queen's impatience hurries him away. She sends one of her admirals, Flemming, to seek him out in Holland, offer his services, declare himself commissioned to be his convoy, and to wait and not return without him. Descartes could no longer resist. Having rapidly set his affairs in order, he left Egmont on the 1st September, 1649, and in the beginning of the following month was in Stockholm.‡

Four or five days after his arrival, Descartes again writes to Elizabeth, giving her his first impressions. He has seen the queen twice, and thinks he already knows her enough to say that she has "not less merit and more virtue than report assigns to her." With the high spirit and majesty which reveal themselves in all her actions, there is mingled an engaging gentleness and good-nature. One of the first things she did was to inquire after Elizabeth, and he had seized the opportunity to talk on the subject freely, not disguising his opinion of the princess; "for," he says, "I saw the queen had too much strength of character to be capable of jealousy." She is very

* 10 Œuvr., pp. 327-328. † Ib., p. 331.

‡ 1 Fisch., Hist. Phil., pp. 267-270.

eager for learning, but, he suspects, not persevering. He is far from sure that his visit will do any good, or be likely to be prolonged. Nothing, he thinks, can keep him in that country longer than till the following spring; though he cannot absolutely answer for the future.*

Christina, however, had very different plans for her new *protegé*. She was bent on retaining him permanently in her service. About a month after his arrival she discussed her plans with Chanut, who was just returned from France, and bade him sound Descartes on the subject. An appointment about the Court, a title, and a landed estate in Sweden answerable to his new dignity, were the bribes she held out. The objection that the climate would be too severe for his chest was met by the promise that the estate granted to him should be situated in the warmer southern parts of her dominions, in Pomerania or the Archbishopric of Bremen. While the affair was under discussion, Descartes was to give the queen daily instructions in philosophy. She must devote to the difficult theme her freshest attention; she must fix an hour sure to be undistracted by business; and therefore, thinking not unnaturally far more about her own royal convenience than the delicate chest of the philosopher, she appointed the time for her daily lesson at five o'clock in the morning.

And here our story abruptly breaks off. In the prime of his life, with all the powers of his great intellect unimpaired, waiting only for a little leisure and quiet to go forward in that research of truth to which his life had been consecrated, possibly—who can tell?—to make another stride as bold and as successful as that marked

* 10 Œuvr., pp. 373-375.

by the "Meditations," there comes a woman's thoughtlessness, and a frosty morning, and the curtain drops.

The winter of 1649 was unusually severe. His friend Chanut was seized by an attack of inflammation of the lungs. Descartes acted as his nurse, watched by his bedside, and at length had the happiness to see him begin to recover. Every morning, after a night of watching, the philosopher must pace the chill streets of Stockholm to the palace of the queen. His hereditary predisposition to disease of the lungs, kept at arm's length by constant care for so many years, could not stand against such treatment. Whilst Chanut was recovering, his friend was attacked by the same malady. He was taken ill on the 2nd February, 1650. The physicians wished to bleed him; but he had no confidence in them, and refused permission; declaring, in his fever, as the story goes, that he would not allow a Swedish doctor to shed French blood. When, on the eighth day, he submitted to their treatment, the inflammation was too strong, and it was too late. He was tenderly cared for, during his illness, by the wife of his friend Chanut, grateful no doubt for the many watchings by her husband's bedside which perhaps had cost Descartes his life. Chanut himself was brought frequently from his sick room to sit with him and to cheer him. Christina sent twice a day to enquire of his health. His strength ebbed by degrees; his voice failed him; he passed away, clasping the hands of his two friends, on the 11th of February, 1650, at the age of fifty-four.*

And so we pass on—the reader and I—from the perishable and incomplete to that which is neither,—from the

* Œuvr., pp. 115-116.

life, to the work of art left behind. Fischer, we know, describes the "Meditations" as "a work of philosophic art in its kind unequalled."* It is not, however, as a work of art,—that is to say, not in a spirit or with motives of literary curiosity,—that I invite the reader to peruse it. I assume him to be a student in philosophy. In this grave and earnest study, such matters as art or literary curiosity wear an aspect of dilettanteism, scarcely worthy the regards of a seeker after truth. It is because Descartes, in thinking out this little book, became the Columbus of modern philosophy — the discoverer of a new world for the intellect of man to explore,—that I now lay the translation before my reader, confident that the time he shall spend in the perusal will not be wasted.

* Ante, p. 85.

THE MEDITATIONS.

(Renati Descartes Meditationes de primâ philosophiâ; in quibus Dei existentia, et animæ humanæ à corpore distinctio, demonstrantur.)

First Meditation.

What things may be called doubtful.

I reflected, now some years ago, how many falsehoods there are which in my early days I received as true, how doubtful all must be that I had since built on them, and how necessary it was, if I would settle for myself any sort of knowledge that should be solid and durable, once in my lifetime to turn all clear out, and begin completely anew from the very foundation. This, however, seemed a vast work, and I waited until I should have reached an age so mature that no later period could be more suitable for undertaking it. Now, however, I have postponed the work so long, that henceforward I should be to blame, were I to spend in deliberation what time may remain to me for action. Opportunely, then, to-day, I have cleared my mind of all cares, obtained for myself a secure leisure, shut myself up alone, and at length seriously and freely devote myself to this general turning over of my opinions.

For this purpose it will not be necessary for me to show that they are all false, which I might perhaps never be able to accomplish; but, because reason already assures me that assent should be withheld not less

scrupulously from such things as are not plainly certain and indubitable than from such as are certainly false, it will be inducement enough to reject all, if I shall find some ground for doubt in each of them. Not that I need, therefore, to run over each in particular, which would be an endless task; but, since when the foundations are undermined the whole superstructure will collapse of itself, I shall at once attack the very principles upon which all that I formerly believed was founded.

Unquestionably, whatsoever I have hitherto received as most certainly true, I have taken in either by the senses or through the senses. But these I have sometimes found to deceive me; and it is a matter of prudence never absolutely to trust those who have deceived us, though but once. And yet, although the senses sometimes deceive us as to things that are minute or distant, surely there are many other things concerning which it seems to be impossible to doubt, though they come from the same source; as for example, that I am now here, sitting by this fire, wearing this winter-coat, touching this sheet of paper, and the like—that these very hands, that this whole body, is mine, what grounds can I have for denying? Unless perhaps I were to compare myself to one of those lunatics, whose brains are overpowered by so masterful a vapour of black bile, that they pertinaciously assert themselves to be kings, when they are paupers, or to be clothed in purple when they are naked, or to have heads of earthenware, or to be nothing but pumpkins, or mere glass-bubbles. But these are madmen, and I should be no less out of my senses, were I to adopt anything of theirs as an example for myself.

That is all very well,—as if I were not the same man who by habit sleeps at night, and in his sleep is subject

now and then to all these things, and sometimes things even less probable, which occur to these madmen while they wake. How often has not the stillness of night persuaded me of these matters of daily habit,—that I am here, wearing this coat, sitting by this fire,—whilst in reality I am lying with my clothes off between the sheets? But now surely it is with waking eyes that I am looking on this paper—this head that I am moving is not asleep —this hand that I stretch out, I stretch it purposely and knowing what I do; and I feel that such things do not happen so distinctly to one asleep. As if forsooth I did not remember to have been at times deluded by very similar thoughts in my sleep! When I ponder all this carefully, I see plainly that there are no certain tests by which I can distinguish waking from dreaming. So that I am fairly bewildered, and this very bewilderment again well nigh confirms me in the thought that I may be sleeping now.

Come, then, suppose I am dreaming; suppose there be no truth in any of these particular things—that I have my eyes open, move my head, stretch out my hand,—nay, nor yet that I have such hands or such a body,—still, it must certainly be acknowledged that in my dreams there seem to be, as it were, certain images painted, which could not be feigned, unless after the likeness of some real things: whence at least these general things, eyes, head, hands, entire body, are such things as are not imaginary, but actually exist. Painters, we know, even when they desire to draw sirens or satyrs of the most fantastic shape, cannot supply them with features in all parts new, but only combine the limbs of different animals: or, if perchance they were to contrive something so absolutely new that nothing like it had

ever been seen, and thus it were entirely fictitious and false, even then at least the colours they compose them of must be real. In like manner, though all these general things, eyes, head, hands, and the like, may be imaginary, yet we must needs maintain for true some other things, still more universal and simple, out of which, as it were from real colours, all these, be they true or false, images of things which exist in our thoughts are fashioned. Of which kind appear to be, corporeal nature in general, and its extension; likewise the Figure of things extended; also Quantity, or their size and number; also the Place in which they exist, the Time through which they endure; and the like. For this reason we shall perhaps not unwisely conclude that, while physical science, astronomy, medicine, and all those sciences which depend on the consideration of compounded things, are doubtful; yet arithmetic, geometry, and other sciences like these, which only have to do with the simplest and most general objects, and as to which it matters little whether such objects be found on the face of nature or not, contain something certain and indubitable; for, whether we be awake or asleep, two and three must make five, and a square can have no more sides than four, nor does it seem possible that truths so evident can be subject to any suspicion of falsehood.

Nevertheless there is fixed in my mind a certain old opinion that there is a God who can do all things, and by whom I have been created such as I am. But how do I know that He has not so wrought that there is no real earth, no sky, no thing extended, no figure, no magnitude, no place, and yet that all these things should seem to me (just as they do) to exist? Nay more, in the same way as I judge that others sometimes err concerning

matters they think they know most perfectly, may not I likewise be deceived as often as I add two and three together, or count the sides of a square, or do anything easier, if such can be thought of, than these? God would not, you may say, deceive me thus, for He is said to be supremely good. But if it were repugnant to His goodness to have created me such that I should be always deceived, it would seem likewise to be opposed to it that He should permit me ever to be deceived; which last, however, cannot be said. Some, perhaps, would rather deny the existence of a God so powerful than believe all other things to be so uncertain. Well, let us not contest the matter: grant all this concerning God to be fictitious; still, whether it be by fate or chance, or as a link in an endless series of things, or in whatever other way these persons suppose me to have come to be what I am; still, since to err and be deceived seems to be an imperfection, the less powerful an author of my origin they assign to me, so much the likelier it will be that I am imperfect enough to be always deceived. To these arguments I have nothing to answer, but am at length compelled to acknowledge that there is nothing of all that I formerly thought to be true, which may not allowably be doubted; and, this, not out of thoughtlessness or levity, but on valid and reasonable grounds; and consequently that from all alike, no less than if it were evidently false, my assent is henceforward to be scrupulously withheld, if I desire to find out anything certain.

But it is not enough that I have once apprehended this —I must take care to keep it in mind. For, the old accustomed opinions still will come up again, and hold my credulity as it were by the right of long use and intimacy fast bound to them, almost against my will; nor shall I

ever discontinue my assent to and trust in them, so long as I suppose them to be such as they really are, namely, in some way doubtful indeed, as has just been shown, but nevertheless extremely probable, and such as it is much more reasonable to believe than deny. Wherefore I think I shall not do amiss if I purposely deceive myself in the precisely opposite direction, and for a while pretend that these things are altogether false and imaginary; until at length, the weight of these prejudices having been equalized on either side, there shall no longer be any bad habit to distort my judgment from the right perception of things. For I know that no danger or error will ensue from this in the meantime, and I cannot be indulging my disbelief more than is right, since I am now intending, not action, but contemplation only.

I will suppose, then, not an all-good God the source of truth, but some malign genius, extremely powerful withal and cunning, to have laid out all his pains on the task of deceiving me. I will think the sky, the air, the earth, colours, shapes, sounds, and all outward things to be nothing else but a play of dreams with which he lays snares for my credulity. I will regard myself as not having hands, nor eyes, nor flesh and blood, nor any sense, but only a delusion that I have such things. I will remain obstinately fixed in this way of thinking, and thus, should I not be able to discern aught that is true, yet I certainly shall with steadfast mind hold fast this which is in my power,—that I shall assent to no falsehood, nor shall that Deceiver, powerful and crafty as he may he, have power to impose upon me.

But this is a laborious undertaking, and a certain indolence draws me back to the accustomed way of life, and I am like a captive who in his dreams enjoys a

fancied liberty, and then, when he begins to suspect he is awakening, fears to be roused, and lazily courts the pleasant illusion. So I of my own accord slip back to my old opinions, and am afraid to rouse myself, lest the laborious waking that must follow these soothing dreams be spent henceforward, not in any light, but amidst inextricable shades of difficulties at present removed.

Second Meditation.

On the nature of the human mind: that mind is more known than body.

The perplexities into which yesterday's meditation has thrown me are so great, that I can scarce think of anything else; yet cannot see how they are to be cleared up; but, like one suddenly fallen into a deep whirlpool, am so tossed about that I can neither find footing on the bottom nor swim up to the top. I will struggle out, however, and again try the same path that I set foot on yesterday; that is to say, brushing away everything that admits of even the slightest doubt, just as if I had detected it to be completely false, I will go forward till I reach something certain, or, if no more than this, at least know for certain that nothing certain is to be known. Archimedes asked only to have one point fixed and stable, to move the whole earth out of its place. Much also is to be hoped, if I can find out any the least thing that is certain and irrefragable.

I suppose, then, all things that I see to be illusion; I believe that of all which my lying memory reports no one thing ever occured: I undoubtedly have no senses; body, figure, extension, motion, place, are chimeras.

What then remains true? Perhaps this one thing, that Nothing is certain.

But how do I know that there is not something different from all those things which I have thus far enumerated, something concerning which there is not the least room for doubting? Is there not some God, or by whatever name I should call him, who inspires me with these very thoughts? Yet why should I think so, when perhaps I myself may be the originator of them? I, at least, am not I at any rate something? But I have just denied that I have any senses, or any body: yet here I am at a stand, for what then? Am I so bound up in body and senses that without these I cannot be? But I have persuaded myself that there is simply nothing in the world, no sky, no earth, no minds, no bodies,—how can it be otherwise, then, but that I am not? Aye, but certainly I was when I so persuaded myself. But there is a Deceiver, I know not who, supremely powerful, supremely cunning, who purposely is for ever imposing on me. No doubt then I too am, if he deceives me, and let him deceive his utmost, he never will effect, that I am nothing so long as I think myself to be something. So that, after the whole matter has been turned over enough and to spare, we must at last confidently pronounce this conclusion, "I am, I exist," so often as I declare it or think it, must necessarily be true.

I do not yet, indeed, sufficiently understand what sort of being I am,—the I who now necessarily am,—and henceforward I must take care lest it chance that I incautiously assume something else in place of myself, and so go astray even in that piece of knowledge which I maintain to be the most certain and evident of all. Let me then reconsider what it was that I formerly believed

myself to be, before I fell into these cogitations; from which I shall then eliminate whatsoever can upon reasons adduced be ever so little invalidated; in order that what shall at last remain may be cut down to so much only as is certain and irrefragable. What, then, have I hitherto thought myself to be? A man, no doubt: but what is a man? Shall I say, a rational animal? No: for I should afterwards have to consider what is an animal, and what is rational; and so from one question should slide into several and more difficult ones; nor have I at present so much leisure that I care to misuse it over subtilties of that kind. Here I will rather fix my attention on that which spontaneously and under the guidance of nature used formerly to occur to my thoughts as often as I considered what I was: that is to say, it occurred to me first that I have a face, hands, arms, and all this mechanism of limbs, such as is seen even in a corpse, and which I denoted by the name of my body: it occurred to me likewise that I am nourished, that I walk, have sensations, and think,—actions which I referred to my vital force (*anima*); but what this vital force was, I either did not think about at all, or imagined it to be some subtle kind of thing like wind, or fire, or æther, infused into the grosser part of my self. Concerning the body, however, I never doubted, but thought I distinctly knew its nature. If I were to attempt to describe that nature as I conceived it in my mind, I should perhaps have explained it thus: By body I understand all that which is fitted to be terminated by some figure, circumscribed in place, so to fill space as to exclude from it every other body; to be perceived by touch, sight, hearing, taste, or smell; movable withal in many ways, not however of itself, but by some other thing that touches it: for I judged that to have

the power of moving itself, or of feeling or thinking, by no means belonged to the nature of body,—so far from it that I rather wondered to find such faculties in some bodies.

But now, when I am supposing that there is a powerful, and, if I might say it, a malignant Deceiver, doing his utmost to delude me in every way, can I affirm that I have even the least of all those things which I have just said belong to the nature of body? I fix my mind on the question; I think, I revolve it; nothing occurs to me; I am wearied of turning over the same thoughts to no purpose. But what of those which I attributed to the vital force, as being nourished, or walking? Since I now have no body, these two are nothing but fictions. Sensation? Certainly this likewise does not take place without a body, and there are many things I have seemed to be sensible of in dreams which afterwards I perceived not to have been sensations of mine. Thinking? Here I have it,—it is thought; this alone cannot be torn away from me,—"I am, I exist," is certain. For how long, though? Certainly, for so long as I think: for, perchance it might be that if I were to cease from all thinking I might thereupon wholly cease to be—I at present admit nothing but what is necessarily true. I am, then, strictly speaking, only a thinking thing, that is, a mind, or soul, or intelligence, or reason,—words that were hitherto empty of meaning for me. I am then a true thing, and truly existent, but what sort of thing? I have said it,—a thing that thinks. Anything more? I will try to imagine. I am not that structure of members which is called the human body; nor am I some subtle air infused into those members, not wind, nor fire, nor vapour, nor breath, nor any thing that I figure to myself,

for I have supposed all these to be nothings, yet the position remains,—I nevertheless am something.

May it possibly be, however, that these same things which, because they are unknown to me, I suppose to be nothing, are yet in real truth no different from that I whom I know? I cannot tell: it is a point I will not at present argue; I can only form a judgment on such things as are known to me. I know that I exist, I enquire what is the I whom I know. It is most certain that the knowledge of this, thus precisely taken, does not depend on those things which I do not as yet know to exist; nor, therefore, on any of those which I fabricate in my imagination. Indeed this very word *fabricate* (*effingo*) warns me of my error; for I really should be fabricating were I to imagine myself to be anything, since to imagine is nothing else but to contemplate the figure or image of some bodily thing: but now I know for certain that I exist, and at the same time that it is possible that all these images, and in general what is referable to the nature of body, may be nothing but dreams; consequently, when I say, "I will imagine, that I may more distinctly know what sort of being I am," I am talking no less foolishly than if I were to say, "I am now awake, and see there is something true, but because I do not yet see this distinctly enough, I will take pains to go to sleep again, in order that my dreams may represent this more truly and more distinctly." Therefore I know that none of those things which I can comprehend by the aid of imagination can pertain to that knowledge which I have concerning myself, and that my mind must carefully be drawn away from those, in order that it may perceive its own nature as distinctly as possible.

What, then, am I? a thing that thinks: what is this?

Clearly, one that doubts, understands, affirms, denies, wills, refuses, imagines too, and feels. These are a good many, certainly, if they all belong to me; but why should they not belong? Am not I the same,—I who now doubt as to almost everything, who yet understand something, affirm this one thing to be true, deny everything else, have a will to know more, refuse to be deceived, imagine even against my will many things, take note moreover of many that seem to come through the senses? Which of these is there that, even though I be in a continual dream, even though He who created me does all in His power to delude me, is not yet equally true as that I myself exist? Which of them can be distinguished from my own thinking? Which can be spoken of as separate from myself? For that it is I who doubt, who understand, who will, is so manifest that nothing occurs to me by which this can be explained more clearly. But it is the same I who imagine; for although it may be, as I have supposed, that there is no truth whatever in the things imagined, yet the power to imagine really exists, and forms a part of my thinking. Lastly, it is likewise I who have sensations, or who take note of corporeal things as if through the senses: for example, I now see light, hear a noise, feel a warmth; these things may be unreal, and I dreaming; still, I certainly seem to see, to hear, to be warm: this cannot be false—this is what is properly called my having a sensation, and this, strictly taken, is nothing else but thinking.

From all this I for my own part begin to know somewhat better what it is that I am. But even yet it seems as if I cannot prevent myself from thinking that corporeal things, the images of which are formed in our thought, and which our very senses can trace, are much more dis-

tinctly known than that I-know-not-what of a self, which does not come before the imagination: though it does certainly seem strange that things which I have recognized to be doubtful, unknown, foreign to myself, should be more distinctly comprehended by myself than that which is true, which is known, which is my very self indeed. But I see how it is; my mind takes a delight in going astray, and cannot bear to be confined within the bounds of truth. Be it so, then; let us for awhile give her the loosest rein, in order that by and bye, on judiciously tightening it, she may suffer herself to be held in. Let us consider those things which are commonly supposed to be understood the most distinctly of all, namely, the bodies we touch and see. I do not mean body in the abstract—for such general perceptions are apt to be somewhat confused—but some one body in particular. Let us take, for example, this piece of wax. It has been recently taken from the honeycomb, it has not yet lost all taste of its honey, it retains somewhat of the scent of the flowers it was gathered from; its colour, form, size, are manifest: it is hard, cold, may be easily touched, if you hit it with your knuckle it will give out a sound; in a word, we have everything here which seems to be required in order that a body may be known as distinctly as possible. But see, while I speak, it is brought near a fire: its remnant of a taste evaporates, its scent dies out, its colour changes, its form is gone, its size increases, it becomes liquid, becomes hot, can scarce be touched, you may hammer at it and it will give no sound. Does it still remain the same wax? We must own it remains: no one denies that: no one thinks otherwise. What was there in it, then, which was so distinctly understood? Certainly none of those things which I perceived through

the senses; for, whatever came under the head of taste, or scent, or sight, or touch, or hearing, are now changed, and yet the wax remains. Perhaps it was this which I now think of, namely, that the wax itself was not that sweetness of honey, nor that fragrance of flowers, nor that whiteness, that form, that sound, but a body which presented itself to me decked lately in those forms, but now in others. But what, precisely, is this which I thus imagine? Let us consider this point, and, subtracting those things which do not really belong to the wax, let us see what remains. Why, nothing more than a something extended, flexible, changeable. What is this "flexible, changeable?" Do I at all imagine that this wax can be changed from a round form to a square, or from that to a triangle? By no means: for though I comprehend that it is capable of innumerable such changes, I yet cannot run over the innumerable in my imagination, so that this comprehension is not produced by the imaginative faculty. What of its being extended?

Is not also its very extension unknown? For in melting wax the extension is increased, in glowing yet more, and more still as you increase the heat; nor could I rightly judge what wax is, were I not to think that it admits of more varieties with regard to extension than I could ever embrace in my imagination. Nothing is left then but I must admit that I do not imagine what this wax is, but apprehend it by my mind alone. I say this of a piece of wax in particular: of wax in general the thing is still clearer. What, then, at last, is this wax which is not perceived but by the mind? Surely the same wax that I see, that I touch, that I imagine, the same in short that I thought it to be at first: and yet, what is worth noting, its perception is not sight, nor

touch, nor imagination, nor ever was so, though so it seemed at first to be, but an inspection of the mind alone, which may be either imperfect and confused, as at first it was, or clear and distinct, as it is now, according as I more or less attend to those things of which it consists.

I think with wonder meanwhile how prone my mind is to error; for, though I consider thus by myself silently and without language, yet in words themselves I am at a stand, and am almost deceived by the very usages of speaking; for we say that we see the very wax itself when it is before us, not that we judge from the colour and the form that the wax is before us; whence I should confidently conclude that I knew the wax by the seeing of the eye, not by the inspection of the mind alone, if I had not just now happened to have been looking at men walking in the streets, and to reflect that I am in the habit of saying I see the men, just as I say of this wax; and yet what do I see but hats and clothes, underneath which there might be automatons, but I judge them to be men: and so that which I thought I saw with my eyes, I really comprehend only by the faculty of judgment, which is in my own mind.

But one who aims at knowing more than the vulgar know, should be ashamed to have sought out matter of doubt in forms of speech invented by the vulgar. Let us go forward, then, by considering whether I more perfectly and evidently perceived what this wax is, when I first looked at it, and thought I knew it by external sense, or at least by what they call the *sensus communis*, that is, by the power of imagination; or whether I do so better now, after I have more closely investigated what the wax is. Certainly to have a doubt about this, would be childish: for, what was there in the first perception that

was distinct? What was there that might not have been had by any animal? But now, when I distinguish the wax from its external forms, and as it were, having stripped its garments inspect it naked, this way of looking at it, though there may still be error in the judgment, certainly requires a human mind.

What shall I say then, of this mind itself, or of me, for I admit nothing else to be in me except the mind: what, I say, I who seem thus distinctly to perceive the wax, do not I, not only much more truly, much more certainly, but also much more distinctly and more evidently, know myself? For, if I judge the wax to exist from the fact that I see it, it follows much more plainly that I myself exist because I see it. For it may be that what I see is not wax; it may be even that I have not eyes with which to see anything: but it clearly cannot be that, when I see, or (for now I draw no distinction) when I think I see, I myself who think so am not something. For the like reason, if I judge the wax to exist from the fact that I touch it, the same thing will again follow, namely, that I exist: if from the fact that I imagine it, or from any other cause, it clearly is just the same. And this same thing which I discern concerning wax, I may apply to all other things which are situated externally to myself. Moreover, if the perception of the wax is more distinctly seen after it has been noticed, not from sight alone, or touch, but from several causes, how much more distinctly must I affirm that I now know myself, since there are no grounds that can aid my perception, whether of wax or of any other body whatever, but every one of them does still better aid in proving to me the nature of my own mind. Over and above which, there are so many other things in my mind itself from which the knowledge of it can be made

more distinct, that those which flow to it from the body scarce deserve to be taken account of. And now, behold, I am at length returned of my own accord to the point where I wished to be; for, since now I know that even things corporeal are not, properly speaking, perceived by the senses, nor by the faculty of imagination, but by the intelligence alone, nor are perceived in that they are touched or seen, but only in that they are mentally apprehended, I, undoubtedly, know that nothing can be more easily or more evidently perceived by me than my own mind.

But, because the habit of an old established opinion cannot be so quickly laid aside, I think fit here to make a pause, that this new piece of knowledge may be more deeply fixed in my memory by a long season of meditation.

Third Meditation.

On the existence of God.

I will now close my eyes, stop my ears, call away all my senses, efface from my very thoughts all images of corporeal things, or at least, since this is scarce to be done, disregard them as empty and false; and, holding colloquy only with myself, and looking more inwardly, will endeavour by degrees to make myself better known to and intimate with myself.

I am a thing that thinks: which is to say, that doubts, affirms, denies, understands some few things, is ignorant of many, wills, refuses, imagines and perceives; for, as I have already observed, though the things I perceive or imagine outside myself are perhaps nothing, yet those

modes of thought which I call sense and imagination, so far as they are only certain modes of thought, I know with certainty to be in me. Here have I briefly summed up all that I truly know, or at least all that I have up to this point discerned that I know. Now let me look round carefully to see whether there are not still some other things which I have not yet looked into.

I am certain (I say) that I am a thing that thinks. But do I yet so much as know what is requisite in order that I may be certain of anything? Undoubtedly, in this first conclusion, there is no more than a certain clear and distinct perception of that which I affirm, which plainly would not suffice to make me certain of the truth of the thing itself, if it could ever happen that anything which I thus clearly and distinctly perceived were false. Consequently I now seem able to lay it down as a general rule, that everything is true which I perceive very clearly and distinctly. But yet there are many things which I formerly admitted as entirely certain and manifest, but which I afterwards found out to be doubtful. Of what kind, then, were these? Why, they were, the earth, the sky, stars, and every other thing which I acquired through the senses. But what was it that I clearly perceived about these? Why, that the ideas of such things, or thoughts, were presented to my mind: but I do not now deny that these ideas are in me. But there was a certain other thing that I affirmed, one which, because of an old habit of believing it, I thought I clearly perceived, but which really I did not perceive, namely, that there were certain things outside me from which those ideas proceeded, and which they altogether resembled; and it was this, in which I either was deceived, or at any rate, if I judged aright, it did not result from

the force of my perception. But how, when I was considering something very simple and easy concerning arithmetical or geometrical matters, as that two and three joined together are five, or the like; these at least did I not see by intuition clearly enough to affirm them to be true? For my part, I saw no other reason for afterwards judging them to be doubtful, but because it came into my mind that perhaps some God might have imparted to me such a nature that I might be deceived even as to those matters which appeared to me most manifest. But as often as this preconceived opinion concerning the supreme power of God occurs to me, I cannot help acknowledging that, if indeed He wills it, it is easy for Him to bring it about that I shall err even as to those things which I suppose myself to see with my mind's eye as clearly as possible; while yet, as often as I turn myself to those same things which I believe myself to perceive quite clearly, I am so strongly persuaded by them, that I feel obliged to break out in language like this: "Deceive me who can, he yet will never bring about that I am nothing, so long as I think myself to be something; or that hereafter it will be true that I have never been, if it is now true that I am; or perhaps even that two and three joined together are more or less than five, or the like; that is to say, things in which I recognize a manifest repugnancy." And certainly, as I have no grounds for thinking that any God is a deceiver, nor indeed as yet sufficiently know whether there be any God, that reason for doubting which only depends on such an opinion is very slender, and, so to speak, metaphysical. But in order to get rid even of this, I ought, as soon as ever an occasion occurs, to examine whether there is a God, and if there is, whether He can be a de-

ceiver; for so long as this is unknown, I do not seem able ever to be clearly certain about anything else.

At present, however, right order seems to require me first to distribute all my thoughts under certain classes, and enquire in which of them it is that truth or falsehood properly resides. Some of them are as it were images of things, to which alone the name of idea is properly applicable, as when I think of man, or chimera, or sky, or angel, or God. Others again have in addition certain forms, as when I will, when I fear, when I affirm, when I deny, I always apprehend indeed some thing as the object of my thought, but likewise embrace in my thought somewhat else besides the likeness of that thing; and of these some are called volitions, or else affections, and some judgments. Now as for what concerns ideas; if they are regarded solely in themselves, and I do not refer them to somewhat else, they cannot properly be false: for whether I imagine a goat or a chimera, it is no less true that I imagine one than the other. No falsehood, again, is to be feared in the will itself, or in the affections; for although I may choose evil things, aye, or things that are nowhere,* it is not on that account the less true that I choose. Thus there only remain judgments, as the class of thoughts in which error must be guarded against: but the special and most frequent error which can be found in these consists in this, that I judge the ideas which are in me to be like or conformable to certain things which are without me. For, so long as I only consider the ideas themselves as modes of my thought, without referring them to anything else, they can scarcely give me any matter for erring. Of these ideas, again, some seem to me to be innate, others adven-

* Usquam: ? leg. Nusquam.

titious, others made by myself: for, that I understand what is a thing, what is truth, what is thought, these I seem to have from no other source than my own nature; but that I now hear a noise, see the sun, feel a fire, I have hitherto judged to proceed from certain things placed without me; and lastly as for Sirens, Hippogryphs, and the like, these are fabricated by myself: or else I can even think that all are adventitious, or all innate, or all made up, for I have not yet clearly perceived the true origin of these things.

But here we must especially enquire, concerning those ideas which I consider as taken from things existing outside myself, what reason moves me to suppose that they are like those things? No doubt I seem to be so taught by nature; and besides I find that they do not depend on my will, and consequently not on myself, for they often present themselves even against my will,—as, at this moment, whether I desire it or not I feel warmth,—and so I think that that sense or idea of warmth comes from a thing different from myself, namely, the fire I am sitting near; and nothing is more obvious than that I should judge that that thing rather transmits to me its own likeness than anything else. I will now see whether these reasons are sufficient. When I here say that I am so taught by nature, I mean only that I am carried by a sort of spontaneous impulse to believe this, not that it is shown me to be true by some natural light; which are two very different things. For, such things as are shown me by a natural light (as, that because I doubt it follows that I am, and the like) can by no means be doubtful, because there can be no other faculty in which I can place so much trust as in this light, or which can teach me that these things are not true: but as for natural im-

pulses, I have already often judged that I have been impelled by them to take the wrong course when it was a question of choosing what was good, nor do I see why I should place more trust in these than in any thing else. Again, although these ideas do not depend on my will, it does not therefore follow that they themselves necessarily proceed from things without me; for, as those impulses of which I have just spoken, though they are in me, yet seem to be different from my will, so there perhaps is in me some other faculty not yet sufficiently known which produces these ideas; as thus far is always seen, that, while I sleep, without any aid from external things, such ideas are formed within me. And lastly, though they should proceed from things different from myself, it does not follow that they are like those things. Certainly in many I seem to have often detected a great difference. Thus, for example, I find myself to have two different ideas of the sun; one, as it were, drawn from the senses, and which as much as any other is to be classed among those I regard as adventitious, according to which the sun appears very small; the other derived from reasons of astronomy, that is, evolved from certain notions innate in me or in some other manner made by me, according to which the sun is exhibited as many times larger than the earth. Both of these ideas undoubtedly cannot be like to the same sun existing outside myself: and reason persuades me that that is the most unlike it which seems to have most directly emanated from the thing itself. All which sufficiently demonstrates that it was not a certain judgment, but a mere blind impulse, by which I believed that there exist certain things different from myself, which transmit to me their ideas or images through the organs of the senses or by some other means.

But there occurs to me yet another way of enquiring whether any of these things, the ideas of which are in me, exist without me. For, in so far as these ideas are merely modes of thinking, I do not recognize any inequality amongst them, and they all appear to proceed from me in the same way; but in so far as one represents one thing and another another, it is clear that they are, as compared to one another, very different in kind; for undoubtedly those which exhibit to me substances are more truly somewhat, and, so to speak, contain in themselves more of objective reality, than those which only represent modes, or accidents; and again that idea by which I understand a supreme God, eternal, infinite, omniscient, omnipotent, the Creator of all things that are, Himself alone excepted, has in it assuredly more of objective reality than those by which are exhibited substances that are finite. But in truth it is manifest by the light of nature that there ought to be at least as much in the total and efficient cause as in the effect of that cause; for whence, pray, can we assume the reality of the effect unless from the cause, and how could the cause give reality, unless it had it? Hence it follows that nothing can be produced by nothing, nor yet that which is more perfect, *i.e.*, which contains in itself more of reality, from that which is less perfect. And this is evidently true not only of those effects the reality of which is actual or formal, but also of ideas, in which regard is had only to the objective reality; that is, not only is it impossible that, for example, any stone which formerly was not should now begin to be, unless it were produced by something in which there is, either formally or eminently,* all

* A *formal* cause is that which is simply adequate, an *eminent*, that which is more than adequate, to produce the effect.

that which is contained in the stone,—nor can heat be produced in an object which formerly was not hot, unless by a thing which is of an order at least as perfect as heat is; and so of other things; but moreover there cannot be in me the idea of heat, or of a stone, unless it be placed in me by some cause in which there is at least as much of reality as I conceive there to be in heat, or in a stone: for, although that cause transfuses into my idea nothing of its own actual or formal reality, it is not on that account to be supposed that it needs to be less real, or that the nature of this idea itself is such as to require no other formal reality of itself beyond that which it borrows from my thought of which it is a mode; but, because this idea contains this or that objective reality rather than another, this certainly it must have from some cause in which there is at least as much of formal, as the idea has of objective, reality: for, if we suppose that something is found in the idea which was not in its cause, it has this from nothing; but yet, however imperfect may be that mode of being by which a thing is objectively in the intellect through an idea, it yet assuredly is not nothing, and consequently cannot have been produced by nothing. Nor ought I to suspect that, since the reality which I am considering in my ideas is objective only, there is no need that the same reality should be formally in the causes of those ideas, but that it suffices if it is in them too objectively; for in like manner as this objective mode of being is suitable to ideas from their nature, so the formal mode of being is suitable to the causes of ideas, at least the first and principal causes, from their nature: and, although perhaps one idea can be born of another, yet here there is not given an infinite progress, but there must be an

arrival at some first idea, the cause of which is like an archetype in which is formally contained all the reality which is in the idea only objectively; so that by the light of nature it is manifest to me that the ideas in me are as it were images, which can indeed easily fall short of the perfection of the things from which they are taken, but cannot contain anything greater or more perfect.

All this, the longer and more carefully I examine it, so much the more clearly and distinctly do I recognize to be true; but what, at last, do I conclude from this? Why, that, if the objective reality of any one of my ideas is so great that I am certain that it neither formally nor eminently is in me, and accordingly that I cannot myself be the cause of this idea, it hence necessarily follows that I am not alone in the world, but there exists likewise some other thing which is the cause of this idea. If, on the other hand, no such idea is found in me, I clearly shall have no argument which can make me certain of the existence of any thing other than myself, for I have diligently searched all round, and hitherto have been able to find none other.

Now, of these ideas of mine, besides that which exhibits to me myself, concerning which there can here be no difficulty—another is that which represents God, another things corporeal and inanimate, another angels, another animals, and others, finally, which represent other men. As for those ideas which exhibit other men, or animals, or angels, I readily understand that they could be compounded of those which I have of myself, and of things corporeal, and of God, even though there were in the world no other men besides myself, no animals, and no angels. As for the ideas of things corporeal, nothing in

them presents itself to me which is so great that it does not seem it could have proceeded from myself; for, if I look into it more closely, and examine them one by one in the same way as I yesterday examined the idea of wax, I discern that there are only a very few things which I clearly and distinctly perceive in them; namely, magnitude or extension, in length, breadth and depth; figure, which arises from the termination of this extension; site or place, which divers figured things occupy as amongst themselves; and motion, or change of that place; to which may be added substance, duration, and number. But the other things, as light and colours, sounds, smells, tastes, heat and cold, and other tactile qualities, are not thought by me unless very confusedly and obscurely; so that I even am ignorant whether they are false or true; that is, whether the ideas I have of them are ideas of things or of non-things; for, although falsehood, properly speaking, or formal falsehood, as I lately pointed out, is not to be found except in judgments, there yet is a certain other material falsehood in ideas, when they represent that which is not a thing as a thing; thus, for example, the ideas I have of heat and cold are so little clear and distinct that from them I cannot tell whether cold is only a privation of heat, or heat a privation of cold, or whether each is a real quality, or whether neither: and because there can be no ideas except as if of things, if it is really true that cold is nothing else but the privation of heat, the idea which represents to me cold as something real and positive may not undeservedly be called false; and so of the others. For these assuredly it is not necessary that I should assign them some originator other than myself; for, if they are false, that is, represent no things, it is by the light of nature that I know they pro-

ceed from nothing, that is, are for no other reason in me than because something is wanting to my nature, and that my nature is not absolutely perfect; whereas if they are true, yet because they exhibit to me so little of reality that I cannot distinguish it from nothing, I do not see why they may not be from myself. But of those matters which in the ideas of corporeal things are clear and distinct, there are some which seemingly I might have borrowed from the idea of myself, namely, substance, duration, number, and any others of that kind; for, when I think that a stone is a substance, or a thing fitted to exist by itself, and also that I am a substance, although I conceive myself to be a thinking, not an extended, thing, whereas the stone is a thing extended, not thinking, so that there is the greatest difference between the two conceptions, yet in respect of substance they appear to coincide; and in like manner since I perceive myself to exist now, and also remember that I existed some time ago, and since I have various thoughts, the number of which I understand, I thus acquire the ideas of duration and number, which I afterwards can apply to any other things. And all else of which the ideas of corporeal things consist, as extension, figure, place and motion, though it is true they are not formally contained in me, since I am nothing else but a thing that thinks, yet since these are only certain modes of substance, and I am a substance, they appear capable of being contained in me eminently. Thus there only remains the idea of God, in which we have to consider whether there is anything which could not have proceeded from myself.

By the name, God, I understand a certain substance, infinite, independent, supremely intelligent, supremely powerful, and by whom as well I myself as everything

else which exists, if anything else exists, have been created. Which things are such that the more closely I examine them, by so much the less does it appear possible that they can have proceeded from me alone. Consequently, from what has been said above, we must conclude that God necessarily exists. For, though the idea of substance is in me from the very fact that I am a substance, there would nevertheless not be the idea of an infinite substance, since I am finite, unless it proceeded from some substance which really is infinite. Nor ought I to suppose that I perceive the infinite, not by a true idea, but only by the negation of the finite, as I perceive stillness and darkness by the negation of motion and light; for on the contrary I clearly understand that there is more of reality in infinite substance than in finite, and consequently that in some way the perception of the infinite was in me earlier than that of the finite, that is, of God than of myself: for on what principle shall I understand that I doubt, that I desire, that is, that something is wanting to me, and that I am not altogether perfect, if there were in me no idea of a more perfect being, by comparison with which I recognize my own defects? Nor can it be said that perhaps this idea of God is materially false, and so may be from nothing, as I just now observed concerning the ideas of heat, of cold, and the like; for on the contrary, since that idea is in the highest degree clear and distinct, and contains more of objective reality than any other, no other is in itself more true, nor is there any in which less suspicion of falsehood can be found. This idea of a Being supremely perfect and infinite is, I say, in the highest degree true; for though perhaps it might be pretended that no such Being exists, it cannot be pretended that the idea of it exhibits

to me nothing real, as I lately said of the idea of cold. For it is in the highest degree clear and distinct; since whatever I clearly and distinctly perceive to be real and true, and to carry in it any perfection, is wholly contained in this idea.

Nor is it a valid objection, that I do not comprehend the infinite, or that there are innumerable other properties in God, which I am not able either to comprehend or perhaps in any way so much as to touch with my thought; for, it belongs to the nature of the infinite, not to be comprehended by me who am finite. It suffices for me to understand this very thing, and to judge that all those things which I clearly perceive and know to imply any perfection, and likewise perhaps innumerable other things which I do not know, are either formally or eminently in God; so that the idea I have of Him is, of all the ideas that are in me, the most true, and also the most clear and distinct. But perhaps I am something greater than I myself perceive, and all those perfections which I attribute to God are somehow potentially in me, though they have not yet put themselves forth nor been brought into activity; for I already find that my knowledge increases by degrees; nor do I see what is to hinder it from thus more and more increasing to infinity; nor even why, with knowledge thus augmented, I may not be able by its help to attain to all the remaining perfections of God; nor lastly why the potentiality of these perfections, if it is already in me, may not suffice for producing the idea of them. Aye! but none of these things can be so. For, in the first place, grant it true that my knowledge increases by degrees, and that many things in me are potential but not yet actual, yet nothing of this pertains to the idea of God; in which nothing at all is potential;

for this very increasing by degrees is the most certain proof of imperfection. Besides, although my knowledge were always to increase more and more, I nevertheless know that it will never on that account be actually infinite, because it will never reach such a point as to be thenceforth incapable of greater increase: but God I judge to be so actually infinite, that nothing can be added to His perfections. And, lastly, I perceive that the objective existence of an idea is not produced from a mere potential existence, which properly speaking is nothing, but only from such as is actual or formal.

Certainly there is nothing in all this but what, to one who has carefully attended to it, is manifest by the light of nature. But because, when I am inattentive, and the images of sensible things dull the edge of my mind, I do not so easily remember why the idea of a more perfect being must proceed from some being that is really more perfect, it may be well to enquire further, whether I myself, having that idea, could exist if no such being existed. In fact, from whom could I have come to be? From myself, perhaps, or from my parents, or from some other beings less perfect than God,—since nothing more perfect nor as perfect as He can be thought or imagined. Now if I were from myself, I should not doubt, nor desire, nor in brief would anything be wanting to me, for, all perfections of which there is in me any idea, I should have given to myself, and so should myself be God. Nor ought I to suppose that those things which are wanting to me are perhaps more difficult to acquire than those which are already in me; for, on the contrary, it evidently was far more difficult that I should have been, that is, that a thing or substance that thinks should emerge from nothing, than to acquire the knowledge of many things

which I am ignorant of,—a knowledge which would be but an accident of this substance. And certainly if I had that greater thing from myself, I should not have denied myself at least those things which could more easily be had: but there are none other, amongst those which I perceive to be contained in the idea of God; because there are none which appear to me more difficult of accomplishment; whereas, if any had been more difficult to accomplish, they certainly would have seemed more difficult to me, if in reality all that I have comes from myself, because in them I should feel my power to be terminated. Nor shall I escape the force of these reasons, if I shall suppose myself to have always been as I now am, as if it would thence follow that no originator of my existence need be sought for: for since all the time of my life may be divided into innumerable parts, of which no one in any manner depends on another, therefore from the fact that I existed a little while ago it does not follow that I must exist now, unless some cause as it were new-creates me at this moment, that is, preserves me. For it is clear to any one who has paid attention to the nature of duration, that exactly the same force and action is needed in order to preserve anything during the successive moments through which it lasts, as would be needed in order to create the same thing anew if it did not yet exist; so that the truth, that conservation differs from creation as a matter of reasoning only (*sola ratione*), is one of those which are manifest by the light of nature. Therefore I ought now to enquire of myself whether I have any power by which I can accomplish that I, who am now, shall also be by and bye; for, since I am nothing else but a thing that thinks, or at least since I have to do at

present simply with that part of myself which is a thing that thinks, if there were in me such a power, I should undoubtedly be conscious of it; but I feel none such, and from this alone I know with certainty that I depend on some being other than myself.

Perhaps, however, this being is not God, but I am produced by my parents, or by some other causes less perfect than God. Still, as I said before, it is evident that there must be at least as much in the cause as in the effect; and therefore, since I am a thing that thinks, and that has in it a certain idea of God, whatever sort of cause be assigned for my existing, that cause must be acknowledged to be a thing that thinks, and that has the idea of all the perfections I ascribe to God. Concerning this cause we may again enquire whether it is of itself, or from another cause; for if of itself, it is clear from what has been said that it itself is God; for, since it has the power of existing from itself, it undoubtedly has also the power of possessing in act all the perfections of which it has the idea in itself, that is, all which I conceive to be in God. But if it comes from another cause, we must again in the same way enquire about this other, whether it is of itself or from another; until at length we shall arrive at the ultimate cause, which will be God. For, it is clear enough that we must not here assume a progress to infinity, especially as it is not only the cause which once produced me that I am here dealing with, but mainly also that which at the present moment preserves me. Nor can it be pretended that perhaps several partial causes have concurred in producing me, and that from one I have derived the idea of this one of God's perfections, and from another the idea of that, so that all those

perfections are to be found somewhere in the universe, but not all united in any one being who is God: for, as against this, the unity, simplicity, or inseparability of all those things which are in God, is one of the chief perfections that I discover in Him; nor assuredly could the idea of that unity in all His perfections have been produced in me by any cause, from which I should not have likewise the ideas of other perfections; for it could not occasion me to understand that they were once joined and inseparable, unless at the same time it occasioned that I should know what they are.

Lastly, as for what concerns my parents, let all be true that I have ever thought about them, yet it is not they, certainly, who preserve me, nor who, in any manner, in respect that I am a thing that thinks, first made me; but only placed certain dispositions in that matter in which I suppose that I, that is my mind (which alone I now take to be myself) indwell: and consequently no difficulty need here be made about them, but we must entirely conclude, from the mere fact that I exist, and that a certain idea of an absolutely perfect Being, that is, of God, is in me, that we have a complete demonstration that God likewise exists.

Nothing remains but to examine in what way I have received this idea of God, for I have neither imbibed it from the senses, nor has it ever approached me unexpectedly, as the ideas of sensible things are wont to do, when these things encounter, or seem to encounter, the external organs of sense; nor again has it been fabricated by myself, for I clearly am unable to take away anything from or add anything to it: thus it remains that it must be innate in me, just as the idea of my own self is innate.

Nor is it surprising that God in creating me should

have impressed me with that idea, that it might be as it were the workman's mark stamped upon his work; nor is it requisite that that mark should be something different from the work itself; but from this one thing, that God has created me, it is very credible that I am made somewhat after His image and similitude; and that that similitude, in which is contained the idea of God, is perceived by me through the same faculty through which I perceive myself; that is, that while I am turning the fixed view of my mind upon myself, I not only discern that I am a thing incomplete and dependent on another, and a thing that aspires to the greater and greater or the indefinitely better, but I also discern Him on whom I depend to have in Himself all those greater things, not indefinitely and potentially alone, but actually and infinitely, and so to be God. The whole force of the argument is in this: I recognize that it cannot be that I should exist of such a nature as I am, that is to say, having within me the idea of God, unless in real truth God likewise existed,—the same God, I say, whose idea is in me, that is, having all those perfections which I cannot indeed comprehend but can in a fashion touch with my thought, and subject certainly to no imperfection. From which it is clear enough that He cannot be a deceiver; for, that every fraud and deception hangs on some defect, is manifest by the light of nature.

But, before I examine this more closely, and at the same time enquire into the other truths which can be gleaned from it, it were well here for a while to linger over the contemplation of God himself, to ponder in thought His attributes, and, so far as the strained attention of the dazzled mind can bear, to gaze upon the beauty of this marvellous light, to wonder, and to adore.

For, as we believe it is in the sole contemplation of the divine majesty that the chief happiness of a future life consists, so even now, from the same, though no doubt far less perfect, contemplation, we may seek to derive a pleasure, the greatest of which we are in this life capable.

Fourth Meditation.

On Truth and Falsehood.

I have now for some days so accustomed myself to the withdrawing of my mind from the senses, and have so exactly understood that there is very little which can be truly perceived concerning corporeal things, much more concerning the human mind, but far more still concerning God, that I now without any difficulty turn my thoughts from things imaginable to such as are intelligible only, and dissociated from all matter. And certainly I have a much more distinct idea of the human mind, so far as it is a thing that thinks, not extended in length, breadth, or depth, nor having anything else that is bodily, than I have of anything corporeal. And when I observe that I doubt, or am a thing incomplete and dependent, then at once the clear and distinct idea of an independent and complete being, that is of God, presents itself to me. And from this one thing, that such an idea is in me, or that I having that idea exist, I so manifestly conclude that God likewise exists, and that upon Him, moment by moment, my whole existence depends, that I am confident nothing more evident or more certain can be known by the human mind. And now I seem to see a way by which, from this contemplation of the true God, in whom

are hid all the treasures of wisdom and knowledge, we may attain to a knowledge of all other things.

In the first place I recognize it to be impossible He should ever deceive me; for in all fallacy or deception is found something of imperfection; and though to be able to deceive may seem to be some proof of acumen or power, yet, undoubtedly, to wish to deceive implies either malice or weakness, and, therefore, does not belong to God. Then I perceive in myself a certain faculty for judging, which certainly, like everything else in me, I have received from God; and since He does not will to deceive me, He assuredly has not given me a faculty which is such, that, while I use it aright, I ever can be misled. Nor would there remain any doubt on this head, unless indeed it should be thought to follow that I therefore never can err; for if whatever is in me, I have from God, and He has never given me a faculty of erring, I do not see how I can ever err. And so, accordingly, whilst I think of God only, and turn myself entirely to Him, I detect no occasion of error or falsity; but, presently, returning to myself, I find myself nevertheless liable to innumerable errors; and on enquiring into this cause of them, I discover that, besides the idea of God, a real and positive idea of a being absolutely perfect, there is also presented to me the idea, so to speak, of Nothing, a negative idea of that to which all perfection is absolutely wanting; and that I, as it were a middle-thing between God and nothing, or between supreme being and not being, am so constituted that, in respect that I am created by the supreme Being, there is nothing whatever in me by which I am deceived or drawn into error, but in respect that I am in a fashion from nothing, or participate of not-being, that is, in respect that I am not

myself the supreme being, there are wanting to me so many things, that it is no wonder if I go astray. And thus I conclude with confidence that error, so far as it is error, is not a something real that depends on God, but is only defect; and consequently that in order to err I need no faculty given to me for this purpose by God, but that error in me arises by reason that the faculty of judging truly which I have from Him is in me not infinite. It is true this is not yet completely satisfactory; for error is not pure negation, but a privation, or the lack of a certain knowledge which somehow ought to be in me; and, having regard to the nature of God, it does not seem possible that He should have placed in me any faculty that is not in its kind perfect, or is deprived of any perfection which is due to it. For if, the more skilled the workman, so much the more perfect is the work that issues from his hand, what can be made by that supreme Constructor of all that is not in all points absolute?* Nor is it doubtful that God could have created me such that I should never be deceived; nor again is it doubtful that He always wills that which is best; is it then better that I should be deceived than not deceived?

Whilst I carefully weigh all this, it seems to me first that I must not wonder if there are some things done by God of which I do not understand the reasons; nor am I on that account to doubt of His existence because perchance I may find out that there are some other things, as to which I do not understand why or how they have been made by Him. For, as I already know that my nature is very infirm and limited, but God's nature immense, incomprehensible, infinite, from this I also

* Here we observe the word 'absolute' used in the sense of complete or perfect.

know sufficiently that He can do innumerable things the causes of which I am ignorant of; and for this reason alone I deem that entire class of causes which are sought for in the end or purpose, as is usually seen in physical matters, to be wholly useless; for I cannot, without rashness, think myself able to trace out the purposes of God. It seems to me, too, that we should direct our attention not to some one creature separately but to the entire universe of things, as often as we enquire whether the works of God are perfect: for that which perhaps, if it stood alone, might seem very imperfect, may, when regarded as holding in the world the position of a part, be most perfect: and although, since I have chosen to doubt concerning all things, there is nothing besides myself and God which I know for certain to exist, I yet cannot, when I bear in mind the immense power of God, deny that many other things have, or at least may have, been made by Him, so that I may occupy the position of a mere part in a universe of things.

In the next place, coming more closely to myself, and examining of what kind my errors are (which alone argue imperfection in me), I notice that they depend on two concurrent causes, namely, on the faculty of knowing which is in me, and the faculty of choosing, or freedom of the will, that is, from intelligence and will together. For by the intelligence singly I perceive only ideas concerning which I can form a judgment, and in this, strictly thus taken, no error, properly speaking, is to be found; for, although perhaps numberless things exist of which there are no ideas in me, I am not properly speaking deprived of these, but only negatively destitute of them, because I certainly can assign no reason to prove that God ought to have given me a greater faculty of know-

ledge than He has given me; and however skilful I may esteem an artificer to be, I do not on that account suppose that he ought to have placed in each of his works all the perfections which he can in some. Nor yet can I complain that I have not received from God a sufficiently ample and perfect will, or liberty of choice; for indeed I am conscious of no limits that circumscribe that. And, what seems to me very remarkable, no other things in me are so perfect or so great, but that I can conceive a more perfect or a greater to be possible; for if, for example, I consider the faculty of intelligence, I at once acknowledge that it is very slender and certainly finite in me, and I at the same time form the idea of a certain other much greater, indeed extremely great and infinite faculty, and this, for the very reason that I am able to form the idea of it, I perceive to belong to the nature of God; and in the same way, if I examine the faculty of remembering, or imagining, or any other, I find none of them that is not in me slight and circumscribed, while in God I understand it to be immense: the will alone, or liberty of choosing, I find to be so great in myself that I can form no idea of a greater; so that it is preeminently on account of this that I apprehend myself to present as it were the image and likeness of God. For, although the will be greater beyond compare in God than in me, as well in respect of the knowledge and power that are combined with it, and render it more firm and efficacious, as in respect of its object, since it extends itself to more things, yet in itself, formally and precisely considered, it does not seem to be greater, because it consists only in the power to do or not do, that is, to affirm or deny, pursue or shun,—or rather in this alone, that in the affirming or denying, pursuing or shunning,

that which is brought before us by the intelligence, we are so borne along that we feel ourselves to be determined to it by no force external to ourselves. For, in order to be free, there is no need that I should be able to incline either way; on the contrary, the more I lean towards one (either because I clearly understand the preponderance of truth or goodness on that side, or because God so disposes the secrets of my thought,) so much the more freely do I choose it; nor, assuredly, does divine grace or natural knowledge diminish liberty, but rather increase and strengthen it. That indifference which I feel, when no motive impels me to one side rather than the other, is the lowest degree of liberty, and evidences no perfectness in it, but only a defect of knowledge, or some negation. For, if I always saw clearly what was true and good, I never should deliberate as to what should be judged or chosen, and so, though plainly free, could never be indifferent.

From all this I perceive that neither is the power of willing, which I have from God, when considered by itself, the cause of my errors; for it is most ample, and in its kind perfect; nor yet is it the power of intelligence, for whatever I understand, since it is from God that I have the power of understanding, I undoubtedly understand rightly, nor can it be in it that I mistake. Whence then arise my errors? It is from this cause alone: that whereas the will has a wider range than the intelligence, I do not keep the will within the same bounds, but extend it likewise to such things as I do not understand; as to which it being indifferent, it easily turns aside from what is true and good, and thus I both mistake and sin. For example, when I was examining a few days ago whether anything in the world exists, and perceived that from the

very fact that I was examining this it evidently followed that I was existing, I was unable not to judge that that which I so clearly understood was true; not that any external force compelled me to do so, but because from the great light in the intelligence there followed a great propension in the will, and thus I believed it all the more spontaneously and freely, the less I was indifferent to it. And now I not only know that I, so far as I am a being that thinks, exist, but, besides, there is presented to me a certain idea of corporeal nature; and it happens that I doubt whether the thinking nature which is in me, or rather which I am, is different from that corporeal nature, or whether they are both the same; and I will suppose that as yet no reason offers itself to my understanding, which convinces me of one rather than of the other. Certainly, it follows from this that I am indifferent to affirm or deny either, or also to form no judgment on the matter. Why, indeed, should not this indifference extend, not only to those things concerning which the understanding clearly knows nothing, but generally to all things which it does not know with sufficient clearness at the time when the will is in deliberation about them; since, however probable the conjectures may be which draw me in one direction, yet the mere knowledge that they are nothing but conjectures, not certain and indisputable reasons, suffices to impel my assent in the contrary direction: a thing which in these last days I have sufficiently experienced, when all those things which I confidently believed to be true, I, for the mere reason that I detected about them the possibility of doubt, positively supposed to be false. But when I do not with sufficient clearness and distinctness perceive what is true, if I abstain from forming a judgment, it is clear that I

act rightly and am not deceived; but if I either affirm or deny, then I make an improper use of my liberty to choose; and, if I turn to that side which is false, I evidently am deceived; while if I embrace the other, it is by mere luck that I light on the truth, but I shall not even on that account be free from blame; because it is manifest by the light of nature that the perception of the understanding ought to precede the determination of the will; and in this improper use of free choice there is inherent a privation which constitutes the form of error,—the privation, I say, is in the operation itself so far as it proceeds from me, but not in the faculty which I have received from God, nor even in the operation so far as it depends on Him. For neither have I any cause to complain that God has not given me a greater power of understanding or a greater light of nature than He has given; because it is of the essence of the finite intelligence that there should be many things it does not understand, and of the essence of the created intelligence that it should be finite; I ought rather to render thanks to Him who never owed me anything for that which He has bestowed, than to deem that he has deprived me of, or withdrawn, that which He has not given: Nor again have I cause of complaint in that He has given me a will of a larger range than my understanding; for, since the will consists in one thing only, and that as it were indivisible, it does not appear that its nature would bear to have anything withdrawn from it; and indeed the ampler it is, so much the more grateful should I be to the giver: Nor yet, finally, ought I to complain that God concurs with me in bringing forth those acts of will, or those judgments, in which I am deceived; for those acts are altogether true and good so far as they depend on God,

and it is in a certain sense a greater perfection in me to be able to bring them forth, than not to be able: and the privation, in which alone consists the nature of the formal falsehood and of the fault, needs no concurrence on the part of God, because it is not a thing, nor a privation that can be referred back to Him as its cause, but should be called a mere negation; for certainly it is no imperfection in God, that He has given me the liberty of assenting or not assenting to certain things, of which He has not placed in my understanding a clear and distinct perception, but undoubtedly the imperfection is in me, because I have made an improper use of that liberty, and have pronounced a judgment on matters which I did not rightly understand. I see however that God might easily have contrived that, though I should remain free, and of a finite intelligence, I yet should never err; namely, if He had endowed my intellect with clear and distinct perceptions of all those matters concerning which I should ever have to deliberate, or if He had only so firmly impressed on my memory that I was never to form a judgment on any matter which I did not clearly and distinctly understand, that I never could forget it; and I readily understand that I, so far as I can form a notion of any whole, should have been a more perfect being than I now am, had God so fashioned me. But not on that account can I deny that there would be in some sense a greater perfectness in the entire universe of things, if some of its parts should not be exempt from error, and others should, than if all were simply alike: and I have no right to complain because God has chosen me to sustain in the world a character which is not the principal and most perfect of all. And besides, though I be not able to abstain from error by that former method which

depends on a self-evident perception of all those things which have to be deliberated on, I yet am able to do so, n that other way which depends only on my remembering hat as often as the truth of the matter is not clear I must bstain from judging. For, although I feel in myself hat infirmity of not being always able to remain steadily ixed on one and the same thought, I yet can, by attentive nd repeated meditation, bring myself to remember it, as ften as my needs require, and thus can form a certain abit of not erring. And as it is in this very thing that he chief and especial perfection of man consists, I think have derived no small gain from this day's meditation, herein I have sought out the causes of error and false- ood. That cause certainly can be no other than that hich I have assigned; for, as often as I hold back my ill in the pronouncing of judgments, so that it shall xtend itself only to those matters which are laid before t clearly and distinctly by the intelligence, it evidently annot be that I shall err, because every clear and dis- inct perception is undoubtedly something, and therefore annot come of nothing, but necessarily has God for its uthor,—God, I say, the supremely perfect, who cannot ithout self-contradiction deceive,—and every such per- eption is therefore undoubtedly true. Nor have I to-day nly learnt what is to be avoided in order that I may ever err, but at the same time also what is to be done n order that I may attain to truth; for I shall attain to it ertainly if I attend only to all those things which I per- ectly understand, and separate them off from the rest, hich I apprehend more darkly and confusedly. Which hing I shall carefully attend to in the future.

Fifth Meditation.

Of the essence of material things; and again of God, that He exists.

Many things still remain to be investigated concerning the attributes of God and concerning the nature of myself or my mind, but these I may perhaps take up at another time; and now nothing seems more urgent—after I have pointed out what is to be avoided and what done for the attaining to truth—than to attempt to emerge from those doubts which in earlier days I fell into, and to see whether anything certain can be found concerning things material.

Before I enquire whether any such things exist without me, I ought to consider the ideas of them so far as they are in my thought, and to see which of them are distinct and which confused. Now I distinctly imagine that quantity which philosophers ordinarily call continuous, or the extension of that quantity, or rather of so much matter, in length, breadth, and depth; I reckon in it various parts; I assign to those parts, at pleasure, magnitudes, figures, places, and motions of place; and to those motions such duration as I please. Nor is it only when these are considered thus in a general way that they are plain and conspicuous to my knowledge; but there are likewise numberless particulars concerning figure, number, motion, and the like, which I perceive by attention, of which the truth is so patent and accordant to my nature, that when I first discover them I do not so much seem to be learning anything new, as to be remembering what I had known before, or to be now first taking notice of that which had long been in my mind, though I had not hitherto fixed the gaze of my attention

on it. And here I think is most to be considered, that I find within me numberless ideas of certain things, which, though they perhaps exist nowhere outside of me, yet cannot be said to be nothing; and though they are thought by me in a fashion arbitrarily, yet are by no means fabricated by me, but have their own true and immutable natures; as when, for example, I imagine a triangle, though perhaps such a figure exists nowhere in the world outside of my thought, nor ever did exist, it nevertheless has unquestionably a certain determinate nature, or essence, or form, which is immutable and eternal, which has not been coined by me, nor depends on my mind, as is clear from this, that I can demonstrate various propositions concerning this triangle, *e.g.*, that its three angles are equal to two right angles, that the greatest angle is subtended by the longest side, and the like. Which, whether I will or no, I now clearly recognize, although I had them no way in my mind at the time when I first imagined a triangle, so that they certainly were not fabricated by myself. Nor would it be to the purpose if I should say that perhaps this idea of a triangle came to me from outward things through the organs of sense, because I have sometimes seen bodies having the form of a triangle; for I can devise numberless other figures concerning which there can be no suspicion that they have ever slipped in through the senses, and yet can demonstrate various properties of these, no less than of the triangle: all which properties are true, since they are clearly known by me, and therefore are somewhat, not a mere nothing: for it is evident that whatever is true is somewhat, and I have already proved at large that all those things which I clearly know are true; and, though I had not proved it, yet such is the

nature of my mind that nevertheless I could not help assenting to them, at least so long as I clearly perceive them. And I remember that always, even before this time, when I clung as much as possible to the objects of the senses, I held the truths of this kind, that is to say those pertaining to shapes, or numbers, and everything else of Arithmetic, or Geometry, or in general pure and and abstract mathematics, as the most certain of all.

But now, if from this alone, that I can draw forth from my mind the idea of anything, it follows that whatever I clearly and distinctly perceive to belong to that thing does really belong to it, cannot an argument be based on this by which the existence of God may be proved? Certainly the idea of Him, that is of a Being supremely perfect, is one that I no less find in myself than the idea of any figure or number; nor do I less clearly and distinctly apprehend it to belong to His nature that He should always exist, than that which concerning any figure or number I demonstrate must belong to the nature of that figure or number: and consequently even supposing not the whole of what I have meditated in these later days to be true, at any rate the existence of God must stand with me in at least as high a degree of certainty as that which I have hitherto attributed to the truths of mathematics.

At first sight, indeed, this truth is not altogether obvious, and even has the air of a sophism. For, as I am accustomed in all other things to distinguish the existence from the essence, I easily persuade myself that I can also disjoin the former from the essence of God, and so conceive God as not existing. But yet, if we look more closely, it is manifest that I can no more separate existence from the essence of God, than from the essence

of a triangle I can separate the equality of its three angles to two right ones, or from the idea of a mountain the idea of a valley: so that it is not less repugnant to think of God (that is, of a Being supremely perfect) as without existence (that is, without a certain perfection), than to think of a mountain without a valley. But yet, while I am unable to think of God unless as existing, any more than of a mountain without a valley, yet certainly, no more than from my thinking of a mountain with a valley it follows that there is in the world an actual mountain, does it follow from my thinking of God as existing that He therefore does exist. For, my thinking lays no necessity on things; and, just as it is free to me to imagine a horse with wings, though no horse has them, so perhaps I may fabricate the existence of God, though no God exist. Aye, but here lurks a sophism; because, from my being unable to think of a mountain without a valley, it does not follow that mountain and valley exist somewhere, but merely that mountain and valley, whether they exist or do not exist, cannot be mutually separated from one another; and so from my being unable to think of God except as existing, it follows that existence is inseparable from God, and consequently that He really exists, not at all because my thought accomplishes this, or imposes some necessity upon any thing, but on the contrary, because of this very thing, namely, the existence of God, necessity determines me thus to think; for it is not free to me to think of God as without existence (that is, a Being supremely perfect without supreme perfection), as it might be free to think of a horse as either with wings or without wings. Nor should it here be said that, while it is necessary I should suppose God as existing, after I have supposed

Him to have all perfections, since existence is one of them, it yet was not necessary for me to make that first supposition; just as it is not necessary for me to think that all four-sided figures are inscribed in a circle, but if I do think so, I am obliged to own that a rhombus is inscribed in a circle, which, however, is evidently false. For, although it is not necessary that I should ever fall into any thought at all about God, yet as often as it does please me to think about a First and Supreme Being, and to draw forth the idea of Him as it were from the treasury of my mind, it is necessary that I should attribute to Him all perfections, although I do not then enumerate all or attend to them in detail: and this necessity plainly suffices in order that afterwards, when I reflect that existence is a perfection, I may rightly conclude that a first and supreme Being exists: just as it is not necessary that I should ever imagine any triangle, but as often as I do wish to consider a rectilinear figure, having three angles only, it is necessary that I should attribute to it everything from which it is rightly inferred that those three are together no greater than two right angles, even though I had not noticed this at first. But when I examine what sort of figures can be inscribed in a circle, it is no way necessary that I should think all quadrilaterals are of the number; indeed that is a thing which I cannot even figure to myself, so long as I will to admit nothing but what I clearly and distinctly apprehend: consequently there is a great difference between such false positions, and the true ideas born within me; of which the first and principal is the idea of God: for assuredly there are many ways by which I understand that this is not something fictitious, dependent on my thought, but the image of a true and

immutable nature; as, first, because no other thing can be conceived by me, to the essence of which existence pertains, except God alone; and again, because I cannot conceive two or more Gods of the same kind to exist; and because, granting that one God now exists, I plainly see it to be necessary that He should have existed in the past from everlasting, and must to everlasting continue to be; and, lastly, because I perceive many other things in God of which none can be taken away by me, nor changed.

But, indeed, whichever mode of proof I may use, the matter always returns at last to this, that only those things absolutely convince me, which I plainly and distinctly perceive. And of those which I thus perceive, although some are obvious to every one, while others are only discovered by those who look closely and investigate with diligence, yet when they once are discovered, the latter are regarded as no less certain than the former. Thus, though it does not so easily appear that in a right-angled triangle the square of the base is equal to the square of the sides, as that its longest side is subtended by its greatest angle, yet the former is not less believed than the latter when once it has been perceived. As for what concerns God, certainly, unless I am blinded by prejudice, and unless the images of sensible things have on all sides blockaded my thought, there is nothing I should sooner or more easily acknowledge—for what in itself is clearer?—than that the Supreme Being is, or that God, to whose essence, and to His alone, existence pertains, exists. And, although I have had need of close consideration in order to perceive this, yet now I am not only as certain of this as of any other thing that seems to me most certain; but, moreover, I also recognize that

the certainty of all other things depends on this in such a way, that without it nothing can ever be perfectly known.

For, although I am of such a nature that so long as I very clearly and distinctly perceive anything, I am unable not to believe that it is true, yet because I am also of such a nature that I cannot fix the attention of my mind always on the same object so as clearly to perceive it, and because there often comes up the remembrance of a judgment formerly made, when I attend no longer to the reasons which led me then to judge anything to be of such a nature, several arguments may be brought, which, were I ignorant of God, would easily overthrow my opinion, and so there would be no subject of which I should have true and certain knowledge, but only vague and mutable opinions. Thus, for example, when I consider the nature of a triangle, it appears no doubt quite evident to me, as one imbued with the principles of Geometry, that its three angles are equal to two right angles; nor can I disbelieve that to be true so long as I attend to the demonstration; but so soon as I have turned the fixed gaze of my mind away from it, although I may still remember that I had clearly understood it, it yet may easily happen that I doubt whether it be true,—that is, if I am ignorant of God,—for I can persuade myself that I am so made by nature that I sometimes am deceived as to those matters which I suppose myself to perceive most evidently, especially when I call to mind that I have often held many things for true and certain, which afterwards I have been induced by other reasons to pronounce false.

But, after I have once perceived that God exists, because I have at the same time understood that all things

depend on Him, and that He is not a deceiver, and have thence collected that all those things which I clearly and distinctly perceive are necessarily true, then, although I no longer attend to the reasons on account of which I judged such a thing to be true, but only remember that I did clearly and distinctly comprehend them, no reason on the other side can be brought forward that will induce me to doubt, but I have of this a true and certain knowledge; nor of this only, but likewise of all the other things which I remember to have at any time demonstrated, as of geometrical and other matters; for what now can be advanced against me? That I am so made as to be often deceived? But I now know that in such matters as I distinctly understand I cannot be deceived. That on other occasions I have held for true and certain many things which afterwards I have found out to be false? But none of these had I perceived clearly and distinctly, but, while ignorant of this rule of truth, I had believed perhaps for other reasons, which afterwards I discovered to be insufficient. What can be said, then? Shall it be, as I lately urged against myself, that perhaps I am dreaming, or that all I now think is no more true than such things as we meet with in our dreams? Yes, but even this alters nothing, for, certainly, though I be dreaming, if anything is evident to my intelligence, that is entirely true.

And thus I plainly see that the certainty and truth of all knowledge depends on one thing,—namely, the knowledge of the true God; so that, before I knew Him, there was no other thing I was able perfectly to know. But now there are things numberless, as well concerning God himself, and other matters of the intellect, as concerning so much of corporeal nature as is the object of pure

mathematics, which can be clearly known and certain to me.

Sixth Meditation.

On the existence of material things, and the real distinction of mind and body.

It remains for me to examine whether material things exist. Indeed, I already know at least that they, so far as they are the object of pure mathematics, can exist, since I clearly and distinctly perceive them. For it is not open to doubt that God is capable of effecting all that I am capable of perceiving; and I have judged that nothing was ever beyond His power to make, unless it were on this account, that for me distinctly to perceive it would involve a contradiction. Besides, from the faculty of imagining, which I am conscious of using when I have to do with those material things, it seems to follow that these things exist; for if we observe closely what the imagination is, it appears to be nothing else but a certain application of the cognoscitive faculty to a body intimately present to it, and consequently existing.

To make this clear, I will first examine the difference there is between the imagination and the pure understanding. Thus, for example, I imagine a triangle: I do not merely understand it to be a figure bounded by three lines, but at the same time I look upon these three lines with a mental gaze as if they were present; and this is what I call imagining. If, however, I wish to think of a chiliogon, I understand indeed just as well that this is a figure consisting of a thousand sides, as I understand that a triangle is one consisting of three, but I do not in the same way imagine those thousand sides, or look on them as if present: and although then, on account of the

habit I have of always imagining, as often as I think of a bodily thing, I may perhaps confusedly represent to myself some figure, it is yet clear that that is not a chiliogon, because it is no way different from that which I should represent to myself if I were thinking of a myriogon, or any other figure having a very great number of sides; nor does it serve in the least for recognizing those properties in which a chiliogon differs from other polygons. Suppose it is a pentagon that is in question, here I certainly can understand its figure, as I did that of a chiliogon, without the aid of the imagination; but I also can imagine it, namely by directing my mind's eye to its five sides and at the same time to the area contained in them; and here I distinctly notice that there is need of a certain peculiar effort of the mind for imagining, which I do not use for understanding; and this fresh effort of the mind clearly shows the difference between the imagination and the pure understanding. I further consider that that power of imagining which is in me, in so far as it differs from the power of understanding, is not required for the essence of my self, that is, of my mind; for although it were wanting in me, I should nevertheless undoubtedly remain the same person that I am now; whence it seems to follow that it depends on something different from myself. And I easily understand that, if there existed some body with which the mind was so conjoined that the mind could apply itself at pleasure to the inspecting of that body, it might be that by this very thing I could imagine things corporeal: so that this mode of thinking would only differ from pure understanding in this respect, that the mind, whilst understanding, would in a manner turn itself to itself, and would pay attention to some of

those ideas which are inherent in it; whereas whilst imagining, it would turn itself to the body, and would look upon something in it which is conformable to the idea either understood by itself or perceived by the sense. I easily, I say, understand that imagination might be so produced, on the assumption that body exists; and because no other equally convenient manner of explaining that faculty occurs to me, I thence conjecture it probable that body exists; but probable only; and however closely I investigate the whole matter, I do not at present see how I can, from that distinct idea of corporeal nature which I find in my imagination, deduce any argument which shall necessarily prove that body exists.

I am accustomed however to imagine, besides that corporeal nature which is the object of pure mathematics, many other things, such as colours, sounds, tastes, pain, and the like, but none so distinctly; and because I perceive these better by sensation, from which they seem with the help of memory to have reached the imagination, we must, in order more commodiously to treat of them, no less diligently enquire also concerning sensation, and see whether, from those things which are perceived by that mode of thinking which we call sensation, any certain argument for the existence of corporeal things can be found. And in the first place I will again search out within myself what those things are which I formerly supposed to be true as being perceived by sense, and for what reason I supposed so; next, I will reflect on the reasons which led me afterwards to cast a doubt on those things; and lastly will consider what I am to believe concerning them now.

In the first place, then, I felt myself to have a head, hands, feet, and other members, which together com-

pose that body which I regarded as part of myself or perhaps even as my whole self; and I felt this body to have dealings with many other bodies, from which it was capable of receiving various advantages or inconveniences, and I measured those advantages by the sense of pleasure, and the inconveniences by the sense of pain. And besides pain and pleasure, I felt also in me hunger, thirst, and other appetites of that kind; as well as certain bodily propensities to gaiety, to sadness, to anger, and other the like affections; and externally, besides the extension of bodies, their shapes and motions, I also felt in them hardness, and heat, and other tactile qualities: and, besides, light, and colours, and smells, and tastes, and sounds, by the variety of which I distinguished sky, earth, sea, and other bodies, from one another. And certainly not without reason, on account of the ideas of all those qualities which presented themselves to my thoughts, and which alone properly and immediately I felt, I supposed I felt certain things distinctly different from my thought, namely, bodies from which these ideas proceeded; for I experienced that they approached me without any consent of mine, so that I was neither able to feel any object, however much I wished it, unless it were present to the organ of that sense, nor not to feel it when it was present; and since the ideas perceived by sensation were much more vivid and precise, and in their way more distinct than any of those which I purposely and consciously could fashion by meditation, or could find impressed on my memory, it did not seem possible that they should have proceeded from myself; and so it only remained that they proceeded from some other things: of which things, since I had no knowledge from

elsewhere than from these very ideas, it was impossible for anything else to enter my mind than that these were like them. And also because I remembered that I had used my senses earlier than my reason, and saw that the ideas which I framed for myself were not so strongly marked as those I received from the senses, and mainly were composed of parts of these, I easily persuaded myself that I had simply nothing in my intellect which I had not had before in sensation. Nor, again, without reason, did I think that that body which by a special right I called mine belonged to me more than other things; for I could not ever be separated from that, as I could from the rest; all my appetites and desires I felt in it and for it; and, lastly, I noticed that pain and the thrill of pleasure were placed in its parts, and not in others outside it. But why from that I-know-not-what sense of pain there should follow a certain sadness of the mind, or from that thrill a certain gladness, or why that I-know-not-what twitching of the belly which I call hunger should admonish me to take food, or dryness of the throat to drink, and so on, these I can give no reason for, unless it be that nature teaches me so; for there clearly is no affinity (at least none that I understand) between that twitching and the desire of food, and between the feeling of a thing that gives pain, and the thought of sadness which arises from it. And likewise all other things which I judged concerning the objects of sense, I seemed to have been taught by nature; for I had felt convinced that these things were so, long before I had thought of any reasons by which they might be proved.

Afterwards however many experiences gradually overthrew that faith which I had had in the senses; for

sometimes towers that seemed round at a distance when near appeared square, statues that were large when I was on a level with them appeared not large when I looked up to them from the ground; and in numberless other similar cases I found myself to be deceived in matters of the outward senses; nor of the outward merely, but also of the inward. For what can be more within ourselves than pain? And yet I have sometimes heard from those who had had a leg or arm cut off, that they have still at times seemed to feel a pain in the part that was missing; and so it appeared that in myself too I could not be clearly certain that any limb of mine was painful, although I felt a pain in it. To which I have lately added two extremely general grounds for doubting: the one, that there is nothing I ever believe myself to feel while waking, but I also can suppose myself to feel it when asleep; and since I do not believe that what I seem to feel in sleep comes to me from things external to myself, I could not discover why I should any more think so of that which I seem to feel while I am awake. The other was, that as I was still ignorant of the author of my origin, or at least assumed myself to be ignorant, I saw nothing to prevent my being so constituted by nature that I should be deceived even in those things that appeared to me the most true. And, as for the reasons on account of which I formerly persuaded myself of the truth of things sensible, I found no difficulty in answering them. For, as I saw that I was impelled by nature to many things which reason disapproved, I concluded that not much faith was to be placed in the teachings of nature. And although the perceptions of sense do not depend upon my will, I thought I must not thence conclude that they proceed from things other than myself, because perhaps there may

be in me some faculty, though as yet unknown to me, to produce them.

But now that I begin better to know myself, and the author of my origin, I suppose that, while not everything that I seem to have from the senses is to be hastily accepted, yet neither is it all to be called in question.

And first, since I know that all things which I clearly and distinctly understand can have been made by God such as I understand them, the fact that I can clearly and distinctly understand one thing apart from another is enough to make me certain that the one thing is different from the other, because God at any rate could have placed them apart; and it matters not by what power it is caused to be thought different. And consequently, from the very fact that I know myself to exist, and at the same time I apprehend that clearly nothing else belongs to my nature or essence, except that I am a thing that thinks, I rightly conclude that my essence consists in this alone, that I am a thing that thinks. And although perhaps (or rather, as I shall presently say, certainly) I have a body which is very closely conjoined with me, yet because on the one hand I have a clear and distinct idea of myself so far as I am only a thinking, not extended, thing, and on the other hand a distinct idea of body, so far as it is only an extended, not thinking, thing, it is certain that I am really distinct from my body, and can exist without it.

Besides, I find in myself faculties for thinking in certain special modes, for example the faculties of imagining and of feeling, without which I can clearly and distinctly understand my whole self, but not conversely them without me, that is, without an intelligent substance for them to be in; for they include some degree of intelligence in their formal conception, and I perceive that they are dis-

tinguished from me, as modes from the thing. I recognize also certain other faculties, as that of changing place, of putting on various shapes, and the like, which indeed can no more than the preceding be understood without some substance to which they can belong, and consequently cannot exist without that. But it is manifest that these, if they exist, must belong to a corporeal or extended, not to an intelligent, substance, because some extension, but not at all some intelligence, is contained in the clear and distinct conception of these faculties. Now, however, there is in me indeed a certain passive faculty of sensation, or of receiving and apprehending the ideas of sensible things, but I should have no use of it unless there likewise existed, either in me or in another, a certain active faculty of producing or effecting these ideas. And this last faculty certainly cannot be in myself, because it plainly presupposes no intelligence, and these ideas are produced without my co-operation, often even against my will. It remains, then, that it must be in some substance other than myself. And since in this substance there ought to be, either formally or eminently, every reality which exists objectively in the ideas produced by it (as I have already pointed out), either this substance is body, or a bodily nature, that is, one in which are contained formally all those things which in the ideas are contained objectively; or else it is certainly God, or some creature more exalted than body, in which they are contained eminently. But, since God is not a deceiver, it is perfectly manifest that He does not impart to me these ideas either by Himself immediately, nor yet by the medium of some creature in which their objective reality is contained not formally, but eminently only. For, since He has so clearly given to me no

faculty for recognizing this, but on the contrary a great propensity to believing that these ideas proceed from things corporeal, I do not see on what grounds I can understand that He is not a deceiver, if they do proceed from some other source than from things corporeal. Consequently, things corporeal exist. Not, indeed, it may be, that all things are in every respect such as they are apprehended by my senses; since this apprehension of the senses is in many respects very obscure and confused; but at least there really exists whatever in them I clearly and distinctly understand, that is, all those things, taken generally, which are included under the subject of pure mathematics.

As for what concerns the remainder, whether they are only particulars, such as that the sun is of such a magnitude or shape, &c., or things indistinctly understood, such as light, sound, pain, and the like, although they are very doubtful and uncertain, yet this very thing, that God is not a deceiver,—and that it is consequently impossible that any falsehood should be found in my opinions, without there being also in me some faculty bestowed by God for the purpose of correcting it,—shows me a certain hope of attaining to truth with regard to these likewise. Certainly, there is no doubt that everything which I am taught by nature has in it something of truth: and by nature, taken generally, I here understand nothing else but God himself, or the co-ordination of created things instituted by God; nor by my own nature in particular do I understand anything else, but the combination of all those things which God has conferred on me.

Now, there is nothing which nature more expressly teaches me than that I have a body, with which it goes amiss when I feel pain, which needs food and drink when

I feel hunger or thirst, and the like; consequently, it cannot be doubted that there is in this somewhat of truth.

Nature in the same way teaches, through those senses of pain, hunger, thirst, &c., that I am not merely present to my body as a sailor is present to his ship, but am very closely conjoined to it, and as it were mixed throughout it, so that I compose one whole with it; for otherwise, when the body suffers, I, who am nothing but a thing that thinks, should not on that account feel pain, but should perceive that wound by pure intelligence, as a sailor perceives with his sight that something in his ship is broken; and when my body needed food or drink, I should expressly understand that, not have confused sensations of hunger or thirst: for certainly these sensations of thirst, hunger, pain, &c., are nothing else but certain confused modes of thinking, arising from the union and as it were commixture of mind and body.

Besides this, I am likewise taught by nature that round about my own body various other bodies exist, of which there are some I should pursue, and others I ought to shun. And certainly, from my being sensible of very diverse colours, sounds, odours, tastes, warmth, hardness, and the like, I rightly conclude that there are, in the bodies from which these various perceptions of the senses arise, varieties answering to these, though, perhaps, not like them; and from some of these perceptions being agreeable to me, and others disagreeable, it is clearly certain that my body, or rather that my whole self, so far as I am a compound of mind and body, can be affected by various conveniences and inconveniences from bodies around me.

There are, however, many other things which, though

they seem as if taught me by nature, I have yet not really received from her, but from a certain habit of judging inconsiderately, and so it may easily happen that these shall be false: as, that all the space in which I meet with nothing that perceptibly touches my senses, is empty; that in a body, for example, which is hot, there is something precisely similar to the idea of heat which is in me; that in a white or green thing there is the same whiteness or greenness which I am sensible of, in bitter and sweet things the same taste, and so of the rest; that stars, and towers, and other remote bodies, are only of the same size and shape as they present themselves to my senses; and other things of the same kind. But, for fear there should be in this something I do not distinctly understand, I ought more exactly to define what I properly mean, when I say that something is taught me by nature. That is to say, I here take nature in a narrower sense than that of the combination of all those things which are bestowed on me by God; for in this combination many things are contained which belong to mind alone, as that I perceive that what has been done cannot be undone, and all other things like this, which are known to me by the light of nature, and of which it is not here the question; many things also which belong to body alone, as, that it tends downwards, concerning which also I do not treat: but I here treat only of those things which are bestowed by God on me as on a compound of mind and body: and so this nature teaches, no doubt, to avoid those things which bring a sense of pain, and to pursue those which bring a sense of pleasure, and such-like; but it does not appear that this nature teaches us to draw from these perceptions of the senses, without a previous examination of them by the intellect, any con-

clusions as to things situated outside of ourselves, because to know the truth concerning these seems to belong to the mind alone, and not to this compound. Thus, although a star does not affect my eye more than the light of a little taper, there is not in that fact any real or positive propensity to believe that it is no larger, but I have from my earliest years judged so without a reason; and although when I come near a fire I feel heat, as also when I come too near it I feel pain, there assuredly is no reason that should persuade me there is in the fire anything like that heat, any more than like that pain, but only that there is in it something, whatever it may be, which produces in me the sensations of heat or pain; and although, again, in some space there may be nothing that touches the sense, it does not therefore follow that there is in it no body; but I see that I am in this as in many other things accustomed to pervert the order of nature, in this respect, that whereas the perceptions of the senses are properly only given by nature in order to signify to the mind what things are serviceable or hurtful to that compound of which the mind is a part, and are clear and distinct enough for that purpose, I use them as if they were safe rules for immediately discerning what is the essence of bodies situated outside of me, concerning which, however, they indicate nothing unless very obscurely and confusedly.

I have already sufficiently considered in what way it is that, notwithstanding the goodness of God, it may happen that my judgments are false. But here a new difficulty occurs, touching those very things which are set before me by nature, as things to be sought for or avoided, and also touching the internal senses, since even in these I seem to detect errors; such as, when one, deluded by the

pleasant taste of some food, takes poison hidden in it. But in that case what nature impels him to is only to desire that in which he finds the pleasant taste, not to the poison, of which he knows nothing: and we can only conclude from this that that nature is not omniscient, which is not surprizing, since, as man is only a limited being, all that belongs to him can only be of a limited perfectness.

'But yet we not infrequently err in those things to which we are impelled by nature, as when sick men feel a desire for food or drink that afterwards will harm them. Here, perhaps, it will be said that they err because their nature is corrupted: but this does not remove the difficulty, because a sick man is no less a creature of God than one in health; nor, consequently, does it seem less repugnant that he should have from God a misguiding nature. And as a clock made up of wheels and weights no less accurately obeys all the laws of its nature, when it has been badly constructed and does not rightly tell the hours, than when in every part it satisfies its maker's wish, so, if I consider the body of a man, inasmuch as it is a mechanism so fitted and composed of bones, nerves, muscles, veins, blood, and skin, that, even if there were no mind in it, it still would have in it all those ~~motives~~ which now do not proceed from the direction of the will, nor, consequently, from the mind, I easily recognize that to such a body it would be equally natural, if, for example, it were suffering from dropsy, that it should be subject to that dryness of the throat which usually suggests to the mind the idea of thirst, and also that from this its nerves and other parts should be so disposed as to take drink, by which the disease would be increased, as, when no such disorder was in it, that from a similar

dryness of the throat it should be induced to take drink that would be useful to it. And although, looking to the preconceived purpose of a clock, I might be led to say, when it did not rightly tell the hours, that it was deviating from its nature; and in the same way, considering the mechanism of a human body as adapted for the motions ordinarily found in it, I might think that it too was deviating from its nature, if its throat were dry when drinking would not be useful for its preservation; yet I sufficiently perceive that this last sense of the word nature is widely different from the former: for this last is no other than a sense dependent on my thought in comparing a sick man, and a badly constructed clock, with my idea of a man in health and a clock well made, and is extraneous to the things concerning which it is spoken; whereas by the word nature, as previously used, I understand something which is really found in the things, and consequently has somewhat of truth.

Yet certainly, although having regard to the body suffering from dropsy, it is only an incorrect phrase when we say that its nature is corrupt, because it has a dry throat when it yet does not need drink; yet having regard to the compound, or to the mind united with such a body, it is not a mere phrase, but a real error of nature that it thirsts when drink will be hurtful; and so it remains here to be enquired how it is that the goodness of God does not hinder nature, thus taken, from misleading.

Now here I notice in the first place that there is a great difference between mind and body in this respect, that body is by its nature always divisible, but mind clearly indivisible: for certainly when I consider the mind, or myself so far as I am only a thing that thinks, I am able

to distinguish no parts in me, but understand myself to be a thing plainly one and entire: and although my whole mind seems to be united to my whole body, yet I know that if a foot, or arm, or any other part of the body is cut off, nothing is thereupon withdrawn from my mind; nor yet can the faculties of willing, feeling, understanding, &c., be called parts of the mind, because it is one and the same mind that wills, and feels, and understands. On the contrary, no thing corporeal or extended can be thought of by me, which I cannot easily in thought divide into parts, and by this I know that it is itself divisible: which by itself would suffice to teach me, if I did not already know it well enough from other sources, that the mind is altogether different from the body.

In the next place I observe that the mind is not immediately affected by all the parts of the body, but only by the brain, or perhaps even only by one small part of it, viz., by that in which it is said there resides the *sensus communis;* for as often soever as this is disposed in the same way, it presents to the mind the same thing; even though the other parts of the body may in the meanwhile be in unlike conditions; as is proved by numberless experiments which need not here be set forth.

I notice further that the nature of the body is such, that no part of it can be moved by another part that is in any degree remote from it, unless it can also be moved in the same manner by somewhat of those parts which lie between them, even though that remoter part were not to act. As for example, in the rope A, B, C, D, if its last part, D, is pulled, its first, A, will not be moved in any other manner than it might also have been moved in had it been pulled by one of the intermediates B or C, and D had remained inactive. And for a like reason, when I

feel a pain in my foot, physiology has taught me that that feeling takes place by means of nerves spread through the foot, which, being extended thence to the brain like ropes, when they are pulled in the foot, also pull the inmost parts of the brain with which they are connected, and excite in them a certain motion which is instituted by nature that it may affect the mind with a sense of pain as existing in the foot. But because those nerves have to pass by the leg, the thigh, the loins, the back, and the neck, in order to reach the brain, it may happen that although that part of them which is in the foot is not touched, but only some part intermediate, the very same motion will be produced in the brain which takes place when it goes amiss with the foot, from which it will be necessary that the mind should feel the same pain: and the same thing is to be supposed with regard to all the other senses.

I observe finally, seeing that every one of the motions which take place in that part of the brain which immediately affects the mind brings to it only some one feeling, we can in this matter form no sounder opinion than that it brings it that which, of all that it could bring it, is most, and most frequently, conducive to the preservation of a healthy man: for, experience bears witness that all the senses we are naturally endowed with are such; and consequently there is found in them nothing which does not testify the power and goodness of God. Thus, for example, when the nerves which are in the foot are moved violently and in an unusual degree, that motion of them communicating through the marrow of the spine of the back to the recesses of the brain, gives there a signal to the mind for feeling something, namely, the pain existing as if in the foot, by which the mind may be excited to

remove, so far as it can, the cause of pain as something hurtful to the foot. It was possible for the nature of man to have been so constituted by God that that same motion of the brain should exhibit to the mind something else; such as the motion itself, either so far as it is in the brain, or so far as it is in the foot, or in any of the intermediate places, or indeed anything whatsoever; but nothing else would have been so conducive to the preservation of the body. In the same manner, when we are in need of drink, a certain dryness in the throat arises from it and moves the nerves, and by their means the inward parts of the brain; and this motion affects the mind with a sense of thirst, because nothing in all this is more useful for us to know than that we need drink for the preservation of our health. And so of the other senses.

From all which it is manifest that, notwithstanding the boundless goodness of God, the nature of man as a compound of mind and body cannot fail to be sometimes misleading. For if any cause, not in the foot, but in any other of the parts through which the nerves are stretched from the foot to the brain, or even in the brain itself, excites the same motion which is usually excited when the foot is affected by any hurt, the pain will be felt as if it were in the foot, and will naturally deceive the senses, because, as the self-same motion in the brain cannot but convey to the mind a sensation always the same, and is much more frequently occasioned by a cause that injures the foot than by one that exists elsewhere, it is conformable to reason that it should always suggest to the mind an injury to the foot rather than one in any other part. And if ever dryness in the throat arises, not as usual, from the body's requiring drink for its health, but from the contrary cause, as happens in dropsy, it is far better that the

dryness should then deceive, than that on the contrary it should always deceive, when the body is in good health. And so of other things.

And this consideration is most serviceable, not only that I may take note of all the errors to which my nature is subject, but also that I may easily either amend or avoid them. For surely when I know that, with respect to such things as concern the well-being of the body, all my senses much more frequently indicate what is true than what is false, and I can almost always use several of them for examining the same matter, and can likewise use memory, which connects things present with things past, and my intellect, which has now looked through all the causes of error, I ought no longer to fear that those things which are every day presented to me by the senses are false, but the overstrained doubts of former days are to be exploded as only deserving a laugh; especially those notions about sleep, which I did not distinguish from waking; whereas now I discern that there is a vast difference between the two, in that dreams are never joined by memory with the remaining actions of life as are those things which occur while I am awake; for certainly if while I was awake some one were to suddenly appear and as instantly disappear, as happens in dreams, so that I could neither see where he came from or where he went to, I should very properly judge that I had seen some ghost or phantom coined in my own brain, not a real man: but since such things occur, as to which I distinctly apprehend whence, where, and when they encounter me, and connect the perception of them, without any interruption, with all the rest of my life, I am perfectly certain that they occur not in dreams but while I wake. Nor ought I in the least to doubt as to their

truth, if after I have called all my senses, memory, and intellect, to examine them, not one of them reports me anything that is repugnant to the rest. For from this, that God is no deceiver, it undoubtedly follows that in such things I am not deceived. But because the necessity for action does not always allow the leisure for so precise an examination, we must own that human life is often liable to error in particulars, and must recognize the infirmity of our nature.

COMMENTARY ON THE MEDITATIONS.

Introduction.

It is time now to ask ourselves the question,—For what purpose have we—the reader and I—bestowed so much of our curiosity and our leisure on Descartes and his opinions?

For my part, unless in the way of a passing amusement, I disclaim all merely literary interest in the subject. How Descartes lived and thought, what his opinions were, or how he came to form them, is to me, in itself, a matter of absolute indifference. I am intent on framing opinions of my own, and think my own point of view, or observatory, here in the latter and best half of the nineteenth century, very much more favourable for the process than was that of Descartes in the seventeenth. Philosophy is a science; and science is a continual striving on towards the unknown, whence a habit of not looking back, and even an antiquating and a forgetting of its pioneers.

Still, an individual student in any branch of science, before he can take part in this onward striving, must bring himself up to the front, by mastering that which is already known concerning the matter in hand,—must at once train his own powers, and find out at what point he is to apply them to the conjoint task, by following, as a disciple, the labours of these same pioneers. Without this discipline, he runs the risk of squandering his

powers, at best, in re-discovering what is already known, but more probably, in repeating exploded errors.

In no science is this historical method of study more requisite than in philosophy, where so much, down even to the bases, is disputed and questionable. The difficulty is, to bring it within a manageable compass, so as not to waste a life-time over other men's labours, or be smothered in, rather than enriched by, the superabundance of our materials.

Suppose we follow the example of Descartes, and here set down, for our own use in this part of our task, the following:—

Rules of Method.

1st. To make it my business to study only those authors who are reputed the greatest, the most original, and who have founded schools of thought.

2nd. To study them in chronological order, so as to watch the process in which problems of thought have evolved themselves one after another, and likewise the better to place myself in the mental position of the several authors.

3rd. To study them, so far as I can, in their own words; and, if I cannot read all they have written, read at least their masterpieces.

4th. But to study them with a commentator, the most modern (other things being equal) that I can find; that so I may combine the seeing their problems in the light they themselves saw them in, with seeing them in that light in which it is most useful for me now to see them.

5th. To divide my science into departments, so as to have a common framework for arranging into its places what I take in from one teacher after another. In order

that this framework may be broad, simple, and complete, it should be constructed upon a general, though, of course, only preliminary, idea of the science.

6. To secure results as I go on: that is to say, so soon as I have ascertained the opinions of the writer I am studying, to ask myself, point by point, whether I agree with him or differ, and for what reasons; and to note this down in writing at the time.

The Series from Descartes to Hegel.

These are general rules, applicable alike to those who would study the English sense-philosophy, from Hobbes, by Locke, to Mill and Spencer, and those who, like myself, desire more especially to trace the chain of the speculative philosophy, from Descartes to Hegel. The two lines are so distinct, that they must necessarily be studied separately,—of course, with the ultimate purpose of comparing or in some way bringing their results into juxtaposition. To do this effectually, it is of course necessary to know them both; and in England, certainly, the speculative philosophy is the less known of the two.

Applying these rules to this department in the history of philosophy, we should, if we desire our knowledge to be really complete, take our authors in the following order: Descartes, Spinoza, Leibnitz, Kant, Fichte, Schelling, Hegel. If the list is too long, perhaps Descartes, Kant, and Hegel may suffice; that is to say, a comparatively exact and full knowledge of these, combined with some general and more distant view of the other four.

Descartes, though he does not carry us very far, cannot be omitted. He makes a veritable beginning: unaffectedly, and in absolute sincerity, he breaks with the

past, and sets out as if he were the first thinker in the world. All who follow, in the series I have designated, accept his starting-point, and build up the edifice he commenced. The problems he suggests, they endeavour to solve. His weak places open out for them new depths to be explored. Thus, because he is unable satisfactorily to bridge over the chasm between mind and matter,—*i.e.*, to use his own language, between thought and extension, —Spinoza, recoiling from this crude dualism, essays to restore the unity of knowledge by denying the existence of matter. Spinoza's paradoxes stimulate Leibnitz to vitalize matter in the Monad, to revive Aristotle's doctrine of development, to evolve life and thought from their inert unconscious germs latent in every stone and clod, and thus to conceive a gradation of force and vitality extending from unorganized nature up to and beyond man, to angelic hierarchies, and finally to the Supreme Perfection. And the very completeness, within certain limits, of Leibnitz's dogmatic system, as methodized by Wolf, when tested by the sceptical doubt of Hume, and proved hollow, sets Kant on his searching investigation into the powers of the instrument with which Leibnitz had been working. And Kant's criticism leads to the new and more radical idealism of Fichte; to Maimon's absolute denial of the Thing-in-itself as a pure fiction; to Schelling's identification of Knowing and Being; and so, by a natural sequence, to Hegel's new Logic, and to speculations, concerning which we in England as yet know nothing beyond a vague impression that they are so profound as to be unintelligible. We know further that in Germany at the present day there is a tendency to turn back from Hegel to Kant; to make Kant's strong sober system of thought the starting-point

for a fresh journey of exploration, in some direction different from that taken by his earlier followers. It may be they are right; it is even likely; but this we cannot be sure of until we too, like them, have tried to fathom Hegel.

Partition of Philosophy.

Beginning, then, with Descartes, and having at this point to carry out our sixth rule of method, that is to say, to register for ourselves the results of our reading of the "Meditations," determining how far we agree, and wherein we differ, and why, we must begin by carrying out our fifth rule,—dividing our task into departments, under some principle based on a preliminary idea of our science, and such as may serve for a constant framework, not merely for Descartes, but for all the writers in this school of philosophy whom we may intend hereafter to study.

The preliminary idea of philosophy which we at present have, is, that it either is or includes "the science of the conditions of a possible knowledge."* And this definition, whether complete or not, is at any rate sufficiently comprehensive to include all that we find in the "Meditations," and may, therefore, serve for our present purpose.

Philosophy is conceived as a central science, which has relations with every branch of knowledge alike. This implies that all knowledge has one common root; which can only be, its *form*, or inner basis, as distinguished from its *matter*, or contents, which are heterogeneous. Knowledge implies a certain relation between the knower and the thing known,—between the self as subject and

* Ante, pp. 1, 2.

other things which are the objects of knowledge. What are those other things?

A rough and obvious partition of the objects of knowledge gives mind or soul, nature or the material universe, and God or the supra-sensible universe. This last term must not at present be used in any dogmatic sense: as a receptacle or portion of a framework, it must be large enough to comprehend the opinions of the pantheist or atheist, no less than of the theist. But, indeed, all three divisions require explanation or correction, before we can adopt them.

As to mind or soul, we have to take account of that dualism within the self, already pointed out.* The knower cannot know the knower, as such: for, knowledge implies a relation between a subject and object; it must have an object which, *quoad hoc*, is regarded as other than the self that knows. Yet introspection or self-knowledge, as this is commonly understood,—that is to say, a power to gaze on, and mentally take notice of, our own states of feeling, nay, of thinking and of willing, is undoubtedly possible to us. I who know such things am the same whose acts or states are known: yet in this very act I must distinguish myself *as* knower from myself as object of my own knowledge.

One realm or domain of knowledge is thus self-knowledge.

Does the knowledge I may acquire concerning the nature of other minds or intelligences, which I regard as similar in species to my own, fall within the same class, or domain, as self-knowledge? Partly, it does: for it is a knowledge of objects of the same kind. Partly it does

* Ante, p. 6.

not; for there are many questions to be determined before I shall be justified in arriving at the conclusion, that there exist in the universe other beings of a nature similar to myself,—questions which Descartes has already to some extent opened out to us: and these questions do not arise, so long as we confine ourselves to the contemplation of our own minds or selves. To some extent, therefore, the knowledge of the nature of souls other than our own belongs to that branch of our science which has to do with external nature.

Perhaps, then, a more accurate subdivision of the science will be, into the knowledge of the self, and the knowledge of the not-self.

Now, that which I know or can know concerning my own states, whether of feeling, thought, or volition, and that which I know or can know concerning other beings like myself, and likewise concerning beasts or reptiles, vegetables, which have a yet lower form of life, things organized or unorganic, which appear to have no life at all,—in a word, concerning animate or inanimate Nature, —have this in common, that they all enter at one period or another into my consciousness, and are or have been apprehended through my inner and outer senses. There is, however, a realm of thought which lies wholly beyond this sphere: my mind strives to penetrate to the causes or ultimate cause, to the origin of existence, to the unknown future. This is the realm of religion; the purely intelligential side of which is, theology.

Here, then, we have our three distinct realms of possible knowledge: the self, external nature, and—if I should be premature in here using the word God—I may say, the Unseen World.

But philosophy is not the science of the soul, of nature,

and of God,—if it were, it would absorb all science, and leave no room for any other; and would thus efface itself, in becoming a mere synonym for all knowledge. Philosophy is the science of the Form, or inner basis, of these three departmental sciences: of that which is common to all three, namely, their common root in the nature of the cognitive faculty. Thus philosophy, in its most abstract conception, may be termed Logic, or the science of Reason. It is in other words the science of the relation between the knower and the thing known.

This relation may be either such as is common to every kind of knowledge, or such as has a special reference to this or that particular kind. The former is analogous to, or in a broad sense identical with, Pure Logic; the latter, Applied Logic. But, since the word Logic has acquired familiarly a more restricted meaning, being applied rather to the mere mechanism of reasoning, or syllogism, than to the searching out of the bases of knowledge itself, it may be more convenient to confine our use of this word, in philosophy, to that for which there exists no real equivalent, namely, the science of that relation of knower to thing known which is common to every kind of knowledge.

Thus the subdivision of philosophy will bring it under these four heads:—

1. Logic, or the science of the Form of knowledge in general.
2. Psychology, or the science of the formal nature of the soul or self.
3. Cosmology, or Nature-philosophy; the science of the formal nature of the external phenomenal world.
4. Theology, the science of a world which is supposed

to lie *behind* or beyond the world of phenomena, *i.e.*, of sense.

Under these four heads, then, we must arrange what is here to be said concerning the teaching of Descartes; and this can easily be done, since he has something to say concerning each of these topics, and what he says concerning each can readily be separated from the others.

To the head of Logic belongs his doctrine concerning doubt and the true basis of certainty: to that of Psychology, his distinction between imagining and thinking; to Nature-philosophy, his resolving all that is truly external to the mind into extension,—a portion of his teaching, which will require a close, and perhaps unfavourable, criticism; and to Theology, his doctrine, that the idea of a Perfect Being is innate in the soul, and amounts to a proof that such a Being exists.

These four topics, respectively, will form the subjects of the four following chapters. For the reasons given later, it is necessary, in dealing with Descartes, partially to invert the natural order, and take Theology before Nature-philosophy.

Chapter I.

Logic—Doubt and the true ground of certainty.

§ 1. *Doubt.*

The first lesson which Descartes, both in his life and writings, teaches us is, that if we would at last attain to certainty, we must begin with doubt. The doubt must be thorough, if the certainty is to be so; and, to be thorough, it must extend over the whole ground as to

which doubt is possible. Let us first examine a little more precisely what this means.

What is, to doubt? It is, to be not sure that something or other is true. To be true, implies always a certain correspondency between two things,—between the opinion about a fact, for example, and the fact itself. Doubt, then, implies two objects of thought and a comparison between them.

Now, a comparison implies, in addition to two objects compared, also a comparer, and a ground or *fundamentum* of comparison. There must be some one who makes the comparison: the active function of comparing cannot, it is evident, be performed by the two objects which are to be compared. Comparison itself is the discerning of likeness or unlikeness, or of some other relation, and this can only be by a bringing of the two objects together on some common ground. Thus, if I compare a patch of red with a patch of blue, I recognize first that they are alike, as being two visual objects extended in space, and then that they are unlike in respect of colour. If I compare a red patch with the sound of a horn, I can only do so by going back to that which is common to both: both are phenomena presented to me by one of my senses; and I can make a sort of imperfect comparison by saying that, whilst alike in this respect, they differ as being the reports of different senses. Any attempt to make the relation between the two closer than this is felt to be impossible, and, indeed, unmeaning. So if I compare this red patch that I see now with the sound of the horn which I heard an hour ago, I must follow out the same process of seeking back for some common ground, and must go a step further. I must first reflect that a sensation and the remembrance of a sensation, though different

in kind, still have certain points of resemblance. Each is an act of thought which, as compared for instance with that which I am conscious of in counting, or comparing two objects, or following out a train of abstract reasoning, may be termed pictorial. Each is the apprehension of something spread out, or as if spread out in space or in time: it is a whole made up of a multiplicity of similar parts. Let us mark this distinction by calling these mental pictures by the common name of idea-images,—a name which shall stand alike for an image actually presented by this or that sense, and an image, no matter whether of sight, or sound, or savour, recalled by memory. We are now in a condition to make a comparison between the red patch we see and the sound of a horn we remember: they are idea-images so related to one another as to be unlike, in that one is a sensation and the other a remembrance, and further unlike in that they belong to different senses. And this is the only relation which can with propriety be said to subsist between these two things. As for saying that both are alike in being idea-images *of my own*, that is quite true, but unmeaning: for every idea-image I can in any way compare or think of, and not only so, but every object of thought which at any time or in any manner comes before me for consideration, is, to precisely the same extent, my own. Here we see that, for the purpose of comparison, the ground of relation must be that quality or property which is large enough to embrace the two objects to be compared, and only large enough to do so: that is, not that it shall embrace no others, but only such, between which there subsists the same kind of relation as between the two we are comparing.

When I doubt, then, no matter what it is that I doubt,

I in that very act discover the existence of two objects to be compared, of an active force (whatever it be) that compares, and of some common ground upon which the comparison is to be made. I cannot consciously be uncertain, without by that very act making these four things certain. Hence, to feel, and in doing so to assert with confidence, that "I doubt," is a step towards knowledge.

That is the positive side of doubt: now let us look at the negative side. How do I know but that my senses may mislead me, or my memory may, or my reason? A want of veraciousness in any one of the three would render the whole fabric of my supposed knowledge worthless. What warranty have I that any one of the three is to be relied on? My senses, we will divide them into the outer senses, such as sight, hearing, taste, smell, or touch, which seem to bring me reports from a world external to myself, and the inner senses, such as the sense of pain or pleasure, anger, love, hate, and so forth, which seem to bring me reports from an inner world which I call myself. Both alike may be delusive: there may be no outer world, or if there be, it may be a world wholly unlike that which these reports seem to describe it. There may be no self, as the one permanent spring or fountain of these feelings, which would then be a mere phantasmagoria with no central unity. How am I to make a stand against these doubts, since there is no way, except by sensation, in which I can test the veracity of sensation? Memory, again, carries with it a perpetual assurance that certain pictures of sensation which come before me to-day are the faithful copies of real sensations which were before me yesterday, or last year. What guarantee have I that this assurance is not fallacious? And, if it be, what certainty is there about

anything? Lastly, those conclusions of pure reasoning which appear to me the simplest and most necessary, that is to say, those the contrary to which seems to my mind inconceivable, how do I know that this very inconceivability is anything more than a mark of the impotence of my own mind? I can no more stand apart from my reason, and use some other faculty to test it, than I can go back to the past, and by direct intuition make sure that my memory does not chronically and systematically play me false.

Let us carefully mark out how far this doubt legitimately extends. Each of these functions, sense, memory, and reason, performs a twofold office,—it directly exhibits to me something, and it likewise suggests to me something beyond. This dualism exists in every one of the operations of each faculty. Thus, the outer senses exhibit to me mental pictures or impressions; and at the same time suggest to me that these impressions are so many copies or images, mirrored on my consciousness from some world external to it. My inner sense exhibits to me individual impressions of pleasure or pain, anger, love, wonder, and so on; and in so doing suggests to me that those impressions constitute portions of the acts or conditions of one and the same permanent substance, myself. Memory exhibits to me pictures, in feebler colours than those of sense, and with outlines blurred and indistinct in places; and withal suggests to me that these are copies, correct so far as they go, of impressions which have heretofore been brought to me by my senses. Reason, finally, exhibits to me thoughts or notions which appear to me absolutely necessary; and likewise suggests that they *are* absolutely necessary, not for me now only, but for all minds, and eternally.

Now if we look back to our doubts, we shall see that in every instance that which is doubtful refers, not to what is directly exhibited, but to what is merely suggested, by each several faculty. The reason is that, so long as we confine our attention to that which is directly exhibited, one of the essential conditions of doubting is absent. There is a possible doubter, but there are not two objects of thought to be compared together, without which there is no meaning in the affirmation that truth either exists or is or may be absent,—in which possibility of absence lies the condition of doubt. Can I doubt that this impression of an object of sight or hearing which at this moment is before me, really is before me? The question thus stated is simply unmeaning. Can I doubt, again, that if the object thus immediately exhibited to my mind suggests the opinion that it is, or is produced by, some object external to my mind, this suggested opinion or belief is really there, or really exists? This is simply an identical proposition: it is really affirming at last in a roundabout way that which I set out by perceiving. But the moment I pass from the direct exhibition and the direct suggestion to the thing suggested, I have before me two objects of thought which may or may not correspond. It may or may not be true that there is an object external to my mind, answering to that perception or impression within my mind which suggests to me the belief that such an object there is. It may or may not be true that this faint and blurred impression before me now, which suggests to me the belief that it is a faithful though imperfect copy of some impression that I have had before, is such a copy, and that I really have at some former time had such an impression as I remember. It may or may not be true that these pro-

cesses of reason, which suggest to me the belief that they correspond to truths which are necessary not for me only but for all mankind, or all intelligences, do correspond to such truths. In all these cases, where there are two objects of thought to be compared together, there is possibility of illusion; some powerful *Deus deceptor* may, for aught we can prove to the contrary, have amused himself by infusing into our minds tendencies to beliefs that are untrue; in all these cases, therefore, there is a possibility of doubt.

Thus there are some things which it is not possible, others which it merely is not natural, to doubt. The first kind are absolute certainties, the second are what have sometimes been called primary beliefs. That at any given moment, that show, or flow of life, or cluster of impressions, or by whatsoever name we please to call that flying glimpse into a seeming outer world of which every one is conscious, and the aggregate of which makes up what we call living, is for that moment really there,—that this show does show itself,—is a truth of the former class. That I, who see this show now, and who remember to have seen many such another, with variations, in time past, am now one and the same being that I was then, a sentient and thinking substance or thing, is a truth of the second class. This distinction between what cannot possibly, and what should not, or cannot naturally, be doubted,—perhaps not an unimportant one,—does not appear to have been clearly seen by Descartes. He places the thought, "I am, I exist," in the first rank of necessary truths. He puts it side by side with the truth that the fact of consciousness, in its purely subjective aspect, as existing moment by moment, cannot be doubted. The two, however, really belong to two distinct species.

By his "I am, I exist," Descartes does not mean simply to declare that every isolated act of consciousness necessarily implies an actor, each thought a thinker, on the ground that every such act or thought is an energy, and so necessitates an energiser, not a mere recipient. He evidently means more than this. He means that, in all the successive acts of thought which a man is either conscious of or remembers, there is one and the same actor,—a "standing and abiding self,"*—in other words a substance. Now this I believe to be perfectly true, but I *believe* it: it is to me a primary belief; I cannot say I know it, in the same absolute sense in which I can say I know, at this moment, that the phenomena of which I am now conscious are actually there for me, *i.e.* that I am conscious of them as phenomena.

Let us look steadily at this distinction, which lies at the base of the more recently developed doctrine of "primary beliefs."

The "*cogito ergo sum*" of Descartes has sometimes been found fault with as an unsound piece of reasoning. The conclusion, it is argued, is assumed in the premiss; in asserting, "I think," the existence of an I who think is already taken for granted. And on what ground is it taken for granted? What is directly present to the consciousness, at any given moment, is the thought and nothing more. Where, then, is the I that is assumed to think? Now all this would be very just, were it true that Descartes professed to deduce the existence of the self by any syllogistic process from the known existence of a doubt. A careful perusal of his own words, however, will satisfy the reader, if I mistake not, that such is not

* "Stehendes und bleibendes Ich" is the expression used by Kant.

his meaning. What he says amounts to this: at any moment when I am doubting, when I am in any way thinking, I am directly conscious of the presence of a self who is the actor,—I feel the energy of which the thought is the expression or outcome. Thought, I feel, is not a reception, but in some sense a creation,—a putting forth of force. What I in my essence am, he expressly says, I do not know, for I cannot imagine it or picture it to myself in any way. I am merely conscious that this thought, at this moment, is an exertion of energy. Thus the direct apperception of the Ego is, as it were, a component part, or at any rate a constant concomitant, of every thought. The word "thought" is here used in its most general sense. I *think*, not merely, though perhaps with the fullest consciousness of personal energy and therefore most vividly, when I form a judgment; but also when I see, or hear, or attend to any other sensation or inner feeling, when I desire, when I will,—whenever, in short, I am conscious of any activity of my mind. The very consciousness of activity, indeed, contains the consciousness of a self that is active. That, I think, is true: and to that extent Descartes has a right to say, not merely that he believes, but that he knows, himself to exist.

But how do I know that the self which thinks now is the same self which thought five minutes ago? The very question seems absurd; but let us pass that, and gravely ask it.

Kant has argued, not indeed that the fact is otherwise, but that the assertion is one that cannot be demonstrated to be true. Let us hear his reasons.

At every point in our life, says Kant, there is the presence of an unknown something which we regard as

our own, or as the self. That something we regard as one, and as simple, and the same through all the successive stages of our varying life. We think it is one and the same, because it has no differences, and that for the very sufficient reason, that it has no contents. That is to say, our knowledge concerning the nature of the soul, at any given moment, being something which we cannot in the least picture to ourselves or imagine—for as to this Kant is agreed with Descartes; amounting in fact to no more than that the perceived act implies the existence of an unperceived and unknown actor; is a mere single and simple apperception, without contents, and so without anything by which we can discriminate between the self as apprehended now and the self as apprehended half an hour ago,—but for the same reason without anything by which we can identify the two.

Since, then, there is no possibility of making any sort of direct comparison between the self of this moment and the self of half an hour ago, to judge whether they are one being or more than one, there remains only the way of inference or indirect comparison: and the only ground of such inference that occurs to us is this: the self of yesterday must be the same self as that of to-day, because the impressions of the former are found to exist in the latter, under the form of recollections. I must be the same being as I was yesterday, because I remember what I did and felt then. This way of reasoning, says Kant, is not sound. What is to hinder this apperception of self, which is the companion of our life, from being as merely a fleeting or drifting feeling as any of the other feelings and phenomena of which our life itself is composed? A consciousness of identity annexed to each successive phenomenon need have no more of quantitative oneness

than the phenomena ourselves. All, in this case, would be, as certain ancient philosophers have held, flux and perpetual change. Our life would be, not incessant permutation of surface on a fixed ground, but incessant shifting of the ground itself, a play of sunbeams on a gliding stream that has no bottom. The inference to the contrary, drawn from the fact of memory, will not bear investigation.

"An elastic ball," says Kant, "which strikes another such ball of equal size in a direct line, imparts to the latter its entire motion,—that is, if we consider only its position in space, its entire condition. Suppose now, by analogy with such bodies, that there were substances which could impart to one another their impressions along with the consciousness of them, we could in that case conceive an entire series of such objects, of which the first would impart to the second its entire condition, along with the consciousness of it; the second would impart to the third its own condition together with that of the first; the third, its own and the two former; and so on through the series. The last substance would thus be conscious of all the conditions of the preceding substances as if they were its own, since the consciousness of all went with them; but it would nevertheless not have been the same person in all these conditions."*

This is no doubt fanciful enough. The possibility of a complicated arrangement like this, as a substitute for the "standing and abiding I," the permanent substance below the consciousness, which is the basis of our sense of identity, is not likely perhaps to shake the faith even of a metaphysician in the reality of the latter. But the

* Kant, Critique of Pure Reason, p. 363 n. (of 1st edition).

bare possibility, or rather the bare conceivability, of such a substitution is enough to dethrone the *cogito ergo sum* of Descartes from its position at the pinnacle of certainty. That I who doubt now am the same as the I who, as I remember, doubted yesterday, may be an article of faith the most absolute, but is not certain in the sense in which the existence of my doubt itself is certain.

Here then is the conclusion thus far:—We agree with Descartes in holding that the first business of one who is beginning to philosophize, is, to doubt whatever is doubtful; and, to that end, to ascertain with precision how far the possibility of doubt extends. We differ from Descartes in stretching the sphere of a possible doubt further than he has done. That which it is impossible to doubt is, at any given moment, the existence of the facts or phenomena of which I am at that moment conscious; and amongst those phenomena, of inferences which run out from that which is directly exhibited to something which is suggested but not exhibited; the existence of a ground whether of space or time on which the thing exhibited can be compared with the thing suggested; and the existence at that moment of a force or self which can make the comparison. All these I know, because all these are included in the fact, of which I am directly conscious, or which I know, namely, that I doubt. But when I try to make one step beyond this, I leave absolute certainty behind. Thus the triumphant "*cogito ergo sum*" must subdue its note into "*cogitationes sunt.*"

§ 2. *The true ground of certainty.*

Thus much concerning doubt. Let us turn now to that which ought to be with every one, as it was with

Descartes, the second step in philosophy,—the determining of the real grounds of certainty or positive conviction. We doubt, only in order that by clearing away all false confidence we may make room for the true. What then is the ground and test of certainty?

Since the search for truth cannot be an infinite regress, or the tracing back *ad infinitum* of truths dependent one upon another,—otherwise, the search would be endless, and truth unattainable,—there must at last be truths which are ultimate, and can stand by themselves. More exactly, either there must be such truths, or all enquiry must terminate in absolute scepticism. What, then, is the test of an ultimate or self-evidencing truth?

If a thing is so manifest that nothing else can be found by which it can either be refuted or made clearer, this, says Descartes, is an ultimate truth.* Thus at last it is the involuntary and unexplained assent that my mind gives to certain opinions which alone constitutes for me the ultimate proof that these opinions are true. All that I very clearly and distinctly perceive, says Descartes, is true. "*Jam videor pro regulâ generali posse statuere, illud omne esse verum quod valde clarè et distinctè percipio.*"†

We must not be misled by this word "perceive," as if Descartes intended only such perceptions as are immediately given through the senses. The context and entire scope of the argument plainly show that our author means to apply his saying to judgments, no less than to sensible perceptions,—more so, indeed, since he expressly says that in the most obvious and simple sensible percep-

* Ante, p. 152.

† Med. 3, p. 15 of the Elzevir edition of 1650.

tion,—*e.g.*, in looking at a bit of wax,*—there is much that, when we analyze our thought, we find we have not really, though we seem to have, plainly and distinctly perceived. The plainness and distinctness which is requisite must be that of the pure intelligence. Amongst the things most clearly "perceived," or "seen by intuition,"—for these two phrases are used by him convertibly,—he mentions such propositions as that two and three make five.†

Here, then, we have Descartes' formula. "That which I very clearly and distinctly perceive to be true, and which no added reason, proof, or explanation, can make more clear and distinct to my mind than it already is, is an ultimate truth."

Our present question, to begin with, is: Is this satisfactory?

One serious objection to it is, that there is no difference in kind, but only in degree, between that which is "very clear and distinct," and that which is only somewhat distinct, which again is also somewhat indistinct: and consequently the difference between what is absolutely true and what is more or less doubtful is only a difference of degree: and from the former to the latter, and so on downwards to the absolutely false, there is a gradation without a break. This doctrine thus reduces certainty to the level of a high, if you please the highest, degree of probability,—a result plainly different from that which Descartes really intends or aims at.

This objection, indeed, is applicable to all the cruder and earlier forms of the doctrine of primary beliefs. A certainty that is merely founded on a *consensus* of man-

* Ante, p. 147. † Ante, p. 153.

kind is, properly speaking, no certainty at all. If it is an empirical *consensus*, that is to say, a consent which has come to our knowledge by a counting up of votes, or researches in history or amongst travellers, it is liable at any moment to be upset by the discovery of some new island in the Pacific, or some hitherto unknown savage tribe in the heart of Africa. Shall we say, a general *consensus* may exist, notwithstanding exceptions that are numerically insignificant? Père Buffier, a Cartesian, who anticipated Reid in giving prominence to this doctrine of primary beliefs, or First Truths, as he calls them, gives as one of the tests of a First Truth, "That it must be so universally received amongst men in all times, in all places, and of all degrees of intelligence, that those who attack it are found to be not more than one per cent., or perhaps, one in the thousand, of the human race."* Christianity itself was in a minority of one in the thousand once: but, not to insist on that, why should not the minority have their rights, and if so, how can we say more than that a belief of this kind is a thousand times more likely to be true than false,—a very different thing from saying that it is absolutely true? This counting of votes is thus but one remove from scepticism. Certainty disappears under either doctrine.

What we are in quest of, then, is a basis of certainty which shall be, if possible, something different in kind from a belief that is either voluntary, that is arbitrary, or founded on an agreement of opinion which is found by experience to prevail amongst mankind. That is a problem suggested, not really solved, by Descartes. Let us make this problem the theme of what remains of the present chapter.

* Buffier, Traité des premières vérités, chap. 8, § 2; p. 38.

I have said that there are things which it is impossible, and things which it is merely unnatural, to doubt. It would be very satisfactory if we could build our philosophy on things which it is impossible to doubt. But I have shown that the range of this impossibility is extremely limited. It is possible to doubt the veraciousness of memory, of the combining faculty of reason, and of the things suggested, as distinguished from those expressed, in each momentarily present act of consciousness. We cannot, indeed, doubt the fact of the suggestion, but we can doubt whether the thing suggested is true. Any one of these three doubts is a fatal obstacle to our combining together any two portions, either of the same or of successive acts of consciousness; yet such combining must be the first step, I do not say in philosophy alone, but in any intelligential process, any advance towards knowledge of whatever kind. These doubts, then, must in some way, if possible, be got rid of.

If we shall be unable to do so, there is at hand a simple reflection which must plunge us into an unsuspected depth of scepticism. The present is but a vanishing point, a real mathematical point of time, having absolutely no contents. What we regard as an instantaneous flash of insight—the glance we give at the half-dozen objects we can take in, as we say, at a look—must occupy time: some part of this seeming whole is really only remembered, and if memory is not to be trusted, some part even of this brief vision may be mere deception. All that we can be sure of is thus reduced to the dimensions of a mathematical point.

Now, when a man of what we call practical common sense meets with a theory of absolute *nihilism* like this, —when he is told that the human mind can know nothing

certain,—his impulse is, to brush it away with a certain contempt. He feels that he himself knows better. This impulse, this contempt, this confidence, are of course to the philosopher, when considered as substitutes for proof, of no value whatever. He calmly meets contempt with contempt. But it is the business of a philosopher to investigate facts, and find out their causes: and this prevailing impulse, this contempt, and this feeling of certainty, are facts, by tracing the causes, or the ultimate basis, of which it is possible he may arrive at knowledge, —it may be, at the particular piece of knowledge he is at this moment in quest of.

What, then, is the secret moving cause of this popular but unscientific confidence? Is it not, that men know, clearly and distinctly, that is to say, by the evidence of direct consciousness, that they do know something? Likely enough they know nothing of metaphysics: but most men have some favourite study, if it be only of the making of shoes, or of whatever occupation, manual or intellectual, they earn their living by. Every man, at any rate, has what he calls his experience; and, as a part or result of it, a collection of principles or rules of conduct, drawn from what he has learnt from his past life, and by which he intends to shape his life in time to come, with a well-grounded confidence that these rules have for him some value, and will be useful in preserving him from many errors whether of speculation or action. If he himself is still young and inexperienced, and has not yet formed his own code of practical wisdom, he scarcely can fail to recognize that other men, older and wiser than himself, have each such a code, and find it serviceable to them. Thus most men not only believe, but know, that knowledge exists, and every man knows that experience exists.

Now let us consider, in a more abstract way, what experience is. It may be termed a compost, in which memory and reason have their part, no less than direct perception or feeling. Its existence proves that there is a certain permeability between the past and the present: that our life, though it is made up of moments, does not wholly perish moment by moment, but there is, underneath the succession of birth and death, of impressions that arise and disappear, upon the surface, a something below the surface which abides, and can upon occasion be recalled. Its regularity, that is to say the possibility of using the experience of the past as a sure guide for the future, is a proof that it is in some way amenable to laws that are uniform. That it can safely, with some reservation indeed, be used in order to give advice to others, proves that its laws have about them somewhat of universality,—that is to say, my experience to a certain extent is founded on principles which hold good, not for myself only, but also for other men, possibly for mankind in general.

May we not, then, place as beyond the reach of doubt, the fact that experience exists?

If so, it will be equally beyond the reach of doubt that the necessary conditions of experience, — that is to say, those things which must exist in order that experience may exist,—do likewise exist.

To answer this question, we must first put another. Am I as absolutely certain, that is to say have I the same warrant of direct consciousness for affirming,—that for me experience, such as I have here described it, exists, as that I myself at this moment exist?

When I at any given moment directly feel that I exist, so that I can say I am sure of it, that which is really

present to my mind is a certain complex or group of impressions which I have the power to grasp together for a short period of time as a whole, and with the feeling that they are in some sense present. Of this complex, the feeling that there is a central force which draws or holds them together, like rays of light drawn to a focus,—in other words, the consciousness of my self as the recipient of this group of impressions,—forms a part. I am at this moment absolutely certain of the existence-for-me, —*i.e.*, the purely subjective reality,—of that group as a whole, and of every constituent portion of it, and amongst the rest of that particular portion which gives or is the consciousness of my self. I am not more or otherwise certain of this portion than of any other portion of the group: I have for each portion alike the same warrant, namely, the testimony of direct consciousness, a testimony which, as was shown in the preceding section, it is not merely unnatural, but impossible, to doubt. Now it makes no difference in this respect whether that group of impressions which is thus for the moment constituted a mental unit be in itself a small and simple group or one much more complex. It makes no difference whether the group be composed of sensible perceptions, or of notions which have themselves been evolved by a long and complex mental process. With every mental act, no matter of what kind, there are always present these momenta: this is my act, and, my act is this and nothing else; and these two propositions are equally indubitable. Whether my attention is fixed on a round patch of red on a white wall, or on the thought "man is mortal," I at that moment know with absolute certainty these two truths,—this perception or this thought is mine, and, what I perceive and what I

think is precisely this. The perception, objectively considered, may deceive, that is to say, may lead me to an inference, erroneous, but outside the perception itself,—there may be no real object on the wall, no real wall, but a mere spectral illusion: so the thought may in the same sense deceive—there may be a man who is not mortal. But that I do perceive this colour, that I do think this thought, it is impossible for me to doubt. Now the processes by which my mind has reached the thought denoted by "my experience," and has annexed to it that precise general meaning defined a page or two back, are no doubt highly complex, and must have taken a good deal of time in the completion: but, when once they have been completed, the thought exists in my mind as a mental unit, and may be brought before my attention as a portion of a fresh group. I may, by a single mental act think the thought "my experience exists:" and when I do so I am absolutely certain, not indeed that this thought is true, but that this thought is there; at this moment it is not more certain that I am, than that I am thinking of my experience.

But now how can I think of my experience, unless my experience had first actually existed?* This is not a question of something outside myself, as to which I may

* This argument may be presented in a more subtle, and yet perhaps more taking, way, as follows:—In order that I may even think of or feel my self as existing, I must have this feeling as part of a group, or "manifold (complex) of intuition," such as that described in the text. Every portion or item in that group as certainly exists as any other. Now since actual intuition is instantaneous, and so of a point only, this group, however small and simple it be, if it have contents at all, must be partially made up of recollections. The group is thus a miniature experience in itself. Here we have before our eyes, so to speak, an experience, every

be deceived, but simply of my own inner history. Can I have the distinct apprehension of that complex to which I give the name of my experience, without ever having had any actual experience? Grant that my memory here and there in detail may deceive me, does it not amount to an absurdity to suppose that all this elaborate and complex mass of recollection, fancy, and judgment, nothing less than the sum total of my past life, so far as it has not perished, which I sum up under the phrase "my experience," is actually brought up to my mind as an object of thought, as often as I please, and yet is an object of pure illusion, with no reality behind it? Does not my "experience," such as I now think it, as plainly prove to me the actual existence of a past life which has left these wrinkles and scores in my mental conformation, as the geological conformation of the globe carries on its surface the records of the glacier-period, of actual volcanic movements that we know to have occurred long before any record of man's handwriting, and the like?

portion of which as indubitably exists as the consciousness of the self which at the time we are observing it is directly felt.

This way of putting the argument, however, is open to the same objection. I am able to doubt the veraciousness of memory. If you convince me that, of that little group of objects which I seem to be, and therefore must be, able to grasp together and regard as a unit of intuition, certain portions are in fact merely recollections, I must be able to doubt the accuracy of those recollections, and consequently the real existence of portions in that group. There is no reason why that group should not contain truth and error mixed,—contain matter directly presented, which is beyond doubt, and matter suggested,—*e. g.* by the inference that what I remember did really take place,—concerning which it is in my power to doubt. Thus in the self-same group, at the same moment, the consciousness of a self may be certain, and the modicum of "experience" contained it may be open to doubt.

Has not my own past left its indelible traces in my soul? Can I recognize the reality of the traces, and doubt the reality of the events which left them there?

I am afraid, though, that after all we must end by saying, This metaphor drawn from geology expresses only too exactly the state of the case, and does so in a manner fatal to the argument. It is possible, though so intensely unlikely that it may properly be styled unnatural to believe it, still it is possible that this globe may have been created at a stroke, in a day or in six, at some very recent date, let us say only six or eight thousand years ago, and with all these illusive marks of a vast antecedent antiquity scored upon it, as the rust of a pretended old coin can be manufactured in Birmingham. It is in like manner possible, though it be no less unnatural to believe it, that these traces as of my experience can be brought before my mind, no matter how often, although no such experience, or no experience at all, has ever in fact existed for me.

Every man has to choose, then, whether he will accept absolute nihilism,—*i.e.* a blank disbelief in everything, except an instantaneous impression which vanishes before him like a smoke-wreath when he looks closely at it, —or this one general Postulate, that the natural faculties he is endowed with work true. This Postulate of course does not require him to believe that his senses, his memory, and his reason, never in single instances mislead him: that would be contradicted by experience; but only that none of them systematically and habitually misleads him, and that each, or several, or all combined, contain in themselves the corrective to these occasional aberrations.* It will be found, I think, that this Postulate,

* "The ancient sceptics," says Professor Caird, "maintained

though not always consciously or avowedly, is made in every positive system of philosophy. Kant, for example, in that part of his Analytic at which he draws up a list of the axioms or First Principles of Pure Understanding, deduces them by means of the principle, that the necessary conditions of a possible experience actually exist. This is only valid on the assumption or postulate that what he calls a "possible experience,"—*i.e.* not the empirical experience of this or that individual, but experience in the abstract, or the experience that is possible to man as such, actually exists,—a preliminary truth which he nowhere attempts to prove.

Our conclusion, then, on the whole matter may be summed up as follows:—There are some truths which it is impossible, others which it is unnatural, to doubt. No systematic knowledge on any subject can be built up, except on a basis which brings in both kinds. It is impossible to doubt that the impression which is present to my consciousness at any given moment is really there. It

that knowledge is impossible, because the mind has only the choice between three courses, all equally fatal to knowledge. It must either (1) start with a first principle, which, because it is a first principle, is necessarily an assumption; or (2) it must go on seeking reason for reason *ad infinitum*, though an endless series of reasons is equivalent to no reason at all; or (3) it must find the reason for A in B, and then again the reason for B in A, in which case it reasons in a circle. The answer is, that the only principle with which thought starts is its own nature, and that this is no mere assumption, because an assumption is an arbitrarily chosen alternative, and in this case there is no alternative and therefore no arbitrary choice. Thought in its universality and its ultimate identity with Being, is presupposed in every alternative that is capable of being expressed or conceived; and there is therefore no possible standing-ground for scepticism within the intelligible world."—Caird's Kant, pp. 553-554.

is unnatural to doubt that my natural faculties, by means of which alone I can attain to knowledge, work true,—that is to say, do either singly or collectively furnish me with the means of attaining knowledge which shall be true, and not illusory.* I must therefore trust my senses, my memory, and my reason, so long as I am employing each within its legitimate domain and in its legitimate manner.†

This conclusion leads us naturally to the question which must be the subject of the following chapter, namely, what are these natural functions of the human intelligence?

Chapter II.

Psychology. Imagining and Thinking.

The reader is not to expect from Descartes anything more than a rudimentary or incipient Psychology. He writes as one who is creating a new science, that is to say, feeling his way, and setting out cautiously over unexplored ground. This does not mean that the ground really was unexplored: Plato and Aristotle, to name no others, had been before him: but the principle of his method, as we know, was to disregard alike antiquity and the Schoolmen, and make an absolute new beginning

* I need hardly remark that we may as well trust all as any, since there are no extraneous means of verifying one more than another, so that a preference given to any one over the others would be purely arbitrary.

† This doctrine, that our natural faculties are witnesses for truth, seems to be really the doctrine, and we may say the entire doctrine on this head, of Descartes, and the true meaning of his axiom that "what I clearly and distinctly perceive, is true."—Ante, pp. 152-153.

for himself. He must accept the disadvantages of a beginner.

The only portion of his speculations in the department of Psychology which, as it seems to me, can with advantage be made the basis of a chapter in this Commentary, is that which deals with the distinction between the Imagination and the Reason. Here he opens up a line of thought which, it is not too much to say, has been either ignored or repudiated in the dominant philosophies of England, whilst in Germany it has been worked out to results which it is highly important for us, who are preparing our minds to study Kant, to make ourselves masters of. I propose, therefore, first briefly to sum up what Descartes has said on the subject; next to point out the doctrine of the school which owns Hume and the elder Mill for its masters, *i.e.*, the Sense-Philosophy or Empiricism of England; and lastly, to consider the doctrine of the German school, so far as it was developed by Kant.

§ 1. *Descartes' doctrine of imagination and reason.*

"To imagine," says Descartes, "is nothing else but to contemplate the figure of some bodily things or image."* Hence, whilst I know myself to exist, I cannot imagine myself: I, as merely a thinking thing, have nothing whereby I can make my essence known to my imagination. To imagine, that I may know, would be as wise an undertaking as to go to sleep and dream, in the hope that my dreams may clear up my waking life. Imagining, however, as well as thinking, is an operation of my mind: here then we have two distinct functions, or two distinct species of mental operations.† It is strange, yet

* Ante, p. 145. † Ib., p. 146.

true, that what I imagine seems to me in some sense more real and more easily intelligible, than what I think. Here is one reason why philosophy is so difficult to an untrained mind, and hence so unpopular: this *lumen siccum* of abstract reason is fatiguing to the mental vision. But this is merely an affair of training: when we are used to it, there is a clearness and precision about the results of abstract uncoloured thought, which makes them easier to grasp and bring into a whole,—easier, above all, to run through and bind together by threads of relation,—than the seemingly more substantial, but heavier, results of imagination. The truths of reason, when once grasped, are more "clear and distinct" than any sensible apprehensions reproduced in the imagination.

This distinction is illustrated by Descartes in various ways. He first takes a bit of wax, and shows us that what is most clear and distinct to our mind is a something which we not only do not, but cannot imagine, namely, its identity as one thing or substance. As for its sensible properties, its colour, size, smell, taste, and feeling to the touch, a little application of heat causes them all to change and disappear: but in the midst of all its changes the thing itself abides the same: it is always this identical bit of wax it was before: its substantial identity is the one thing we clearly and distinctly know concerning it.* A second illustration he takes from mathematical figures. I can either think a triangle, or I can imagine or picture to myself a triangle: either process is so easy that, in geometrical reasonings, we often slide unconsciously from one to the other. But now take such a

* Ante, pp. 147-149.

figure as a chiliogon: we can as easily think of a figure with a thousand equal sides (and angles) as of three; and we have no difficulty in working out, by reasoning alone, many of its properties, and having done so we are no less certain that our results are true than if we had been working out the properties of a triangle. It is otherwise if we try to picture our thousand-sided figure to our imagination. No force of fancy can accomplish it. For, we are to bear in mind, it must not be imagined in a vague sort of way, in a way that might stand just as well for a figure of nine hundred and ninety sides, or of ten thousand,—the imagination must be precise, or it is not the image of a chiliogon. "There is need, in short," he concludes, "of a certain peculiar effort of the mind for imagining, which I do not use for understanding; and this fresh effort of the mind clearly marks the difference between the imagination and the faculty of pure thought."*

Further, he adds, pure thought seems to belong more unmistakably to the essence of myself, than the imagination does. For, I can conceive myself as destitute of the power to imagine, and yet, though vastly changed, I should remain myself: but take away the power to think, and I myself am gone; since it is only by thinking, and because I think what is involved in the fact of my doubting, that I know myself, or anything else, to exist."†

This is substantially all that Descartes has to say on this matter.‡

* Ante, p. 188. † Ante, p. 188.

‡ This distinction between imagining and thinking (*φαντάσια* and *νοῦς*) is indicated very clearly by Aristotle (2 Grote's Arist. pp. 212, 218, 222, 226, 230, 233).

§ 2. *The Sensationist doctrine of imagination.*

I must now set forth in outline the teaching on this subject of the English sense-philosophy,—that is to say of that school whose first great teacher was David Hume, and to which in later times belong Hartley, the two Mills, Bain, and Herbert Spencer. This way of thinking is sometimes called by the Germans Empiricism, sometimes Sensationism; the meaning of these terms being simply, that these thinkers take Experience, perception through the senses, or Sensation, as their starting-point, reject for the most part any innate active mental faculties, and reduce the mind to a mere indifferent receptivity. Sensation, not intuition, is that which they regard as the most real, or at any rate as the first and most obvious reality. For convenience of naming, then, I will call the school of Hume Sensationist, and that of Kant Intuitonist.

Now amongst the powerful and original thinkers of the former school, there are of course many diversities of opinion and even of points of view. What we have to determine, however, if we would regard these thinkers and the system they between them have constructed as a whole, is that which I will call their common motive; understanding by this term, not necessarily a conscious and deliberate aim or purpose, but that idea, hypothesis, or mode of treating the subject, which underlies and secretly guides the whole growing system of thought.

The common motive of Sensationism I take to be this:—Philosophy ought at an early state in its progress to solve, or in some way to explain, the mystery of the co-existence of mind and matter; and the way to do this is, to find the expression of mind in terms of matter.

Mind, the Sensationists are convinced beforehand, or at least strongly suspect by way of hypothesis, must at bottom be some modification of Matter. Let us, as soon as we can, find out what that precise modification is. How is this to be done? The method best adapted to that purpose seems to be the following:

Amongst the phenomena of mind, that which lies nearest to matter, and seems most to partake of its nature, is the idea-image. This may be described as the copy of a sensation; and a sensation, at any rate any one of the outer sensations,—*e.g.*, a sight, as distinguished from the inner sensation of fear or anger,—appears to be a sort of point of contact between mind and body. It is a mental act—it requires attention, and I feel that attention is an act of my own; and at the same time it is or seems to be a bodily act, for I feel that there is a body, external to myself, which I touch,—since seeing, hearing, tasting, smelling, may all be reduced to modifications of the sense of touch: the retina, the tympanum, the palate, or rather the nerves connected with these several parts of the body, being so framed as to touch objects each in a different way, and to carry to the brain dissimilar reports of their several contacts. Let the idea-image, then, be taken as our starting-point. At this point there seems to be a veritable union or contact of mind and body.

From this starting-point two lines of thought, carried in opposite directions, will enable us,—say these philosophers to themselves,—to accomplish our purpose. We must reduce all mental operations to idea-images: and we must account for the formation of the idea-image on purely physiological, that is materialistic, principles. I shall here deal only with the former of these two lines;

this alone belonging to the subjective, or psychology proper. How, then, is it possible to reduce all thinking, all mental activity, to the formation of idea-images?

Berkeley, completely inverting the older doctrine, by which the Particular was derived from the Universal, had confidently proclaimed that all thinking was of the particular and concrete: that there were no such things as general notions: in fact, that the operation of thinking consisted of the forming of a mental picture, annexing to it a name, and reproducing the picture on occasion of hearing or using the name, by means of the Association of Ideas. Here, crudely sketched, was the very thing that was wanted. This conception, expanded, systematized, and worked out in detail, constitutes the psychology of the Sensationist school. Its cardinal doctrines are, 1. That all thinking begins with the concrete and particular; 2. That what we term general notions are merely a kind of mental short-hand, carried on by making words do the duty of thoughts; and 3. That the only active, or quasi-active, function of the mind is a certain agglutinative propensity, called the Association of Ideas. From this disposition to restrict the activity of the mind within the narrowest limits—spontaneity being that in which mind is most unlike matter—it follows naturally that this school, speaking generally, is strongly Necessarian, and can find no room for the freedom of the will.

The result is that, whereas Descartes regards imagining as one kind of mental operation and thinking as another, and pronounces the latter to be of the two the more distinctively rational and proper to man, the modern English sensationist school on the contrary pronounce imagining to be the only real thinking, and that which we call abstract thought to be merely an imperfect and disguised

imagining, wherein the use of words gives a facility gained at the cost of clearness.

The German philosophy, to which we have now to direct our attention, follows out the line of thought entered upon by Descartes, and naturally enough, arrives at conclusions directly opposite to those of the Sensationists.

§ 3. *Doctrine of Kant.*

Leibnitz and Kant, differing widely in many respects, are alike in setting out from the position taken by Descartes, viz., that imagining and thinking are two distinct and separate functions of the human mind. In fact, the method of the German school differs fundamentally from that of those English writers whose opinions on this topic I have sketched in the preceding section. Their motive—using this term in the sense there indicated—is not the same.

To this extent, indeed, the German and the English thinkers are agreed: it is a problem, which sooner or later philosophy must grapple with, how to get rid of this dualism of mind and matter; for it seems impossible to rest satisfied in the conception that the universe of phenomena is made up of two substances, mind and matter, perfectly heterogeneous, and having no cognizable relations each to each,—at once closely interwoven with and absolutely foreign to one another. But here the agreement ends. It is no doubt possible, say the Germans, that eventually philosophy may be advanced enough to express mind in terms of matter: but in the first instance, at any rate, since all knowledge is a mental and not a material process, what is given to us is, matter

in terms of mind. Materialism, then, may, for aught we can at present assert to the contrary, be the last word of our science; but its first word is, Idealism. This, if nothing more, Descartes has taught us. the thing most certain at the outset is, not that my body, or any body outside it, but that my thought, exists.

This being so, the natural order of arranging our researches in philosophy would seem to be, first to explore the ground which unquestionably belongs to us,—that is to say, first to arrange and classify the functions of our self, or mind,—before we begin to speculate as to the relations which this mind may have with the at present problematical world of matter. The question, What is the mind? plainly ought to precede the question, How came it to be here? And, if so, the former question ought to be investigated without any bias or prejudice arising from a hypothesis framed with regard to the latter.

Our basis, then, accepting the conclusions arrived at in the preceding chapter, is this:—My inner life, or consciousness, certainly exists: and the functions by which I propose to reduce into order, arrange, and classify it,—that is to say, my memory and my reason, may reasonably be presumed to work true. Thus I have trustworthy material to work upon, and trustworthy tools to work with. My results, therefore, so long as I confine myself to this portion of my work, may confidently be relied upon.

Analysis of the formation of the idea-image.

Now let us by all means begin with the idea-image. Let us take some one simple image as to which there can be no mistake,—for example, the image of the full moon. We have seen it many times, and can with ease recall it with as much precision as the purpose now before us

requires. Let us then consider with attention what has taken place in our minds, as the necessary condition of our having the power to call up this image. There has been, whether I now remember it or not, a first time—each of us may say for himself—of my seeing the full moon. On that occasion I had first what I will call a "glimpse," that is to say, a confused general impression of a bright somewhat on a dark ground. This glimpse drew my attention particularly to this bright object, and I concentrated my gaze and thoughts upon it for a certain time. I noted two distinct things about it, namely, that it had contents and that it had form,—the contents being, the surface it covered, and the form, its outline. I noted further—at any rate, I now can note—that the two mental processes, by one of which I apprehended the contents or surface, and by the other the form or outline, were different in kind. The surface—which again can be more accurately described as the extension in space—I apprehended by a process of adding part to part, or mentally travelling over the whole space of it, apprehending by degrees the existence of portions lying as it were outside of one another and side by side: in brief, a process of simple addition. The outline, on the other hand, was drawn by a process, every instant or minutest portion of which involved an act of comparison. I traced an imaginary line in the sky, following out the points at which the yellow of the moon impinged on the dark blue of the sky behind it,—that is to say, I traced a line made up of points which were neither yellow nor blue. If there were any, the minutest, speck of either colour on my line, I knew that the line at that place was drawn false—it must be drawn either on the moon or on the sky, it was not, therefore, a true out- or boundary-line.

Now let us take these two dissimilar processes separately, and follow out each in order somewhat more fully. The process by which I discerned the surface may be described as a process of sensation (αἴσθησις); that by which I discerned the outline, a process of reason (λόγος). For how, except by reason or understanding, could I have discerned that there is an outline? I do not see it, and never have seen it: for I see only colour, and this outline has no colour. To discern any one point of it, I must trace the yellow of the moon as far as I can, and not stop till I have come to the very end of it: and I must stop at that very point, not bringing in the smallest particle of the blue behind. That point is a negative perception: it is a point, not merely invisible to the eye, but which I know no telescope, however powerful, could ever show me: for it is a mathematical point, which my mind can apprehend but not my senses: it is a point which is neither yellow nor blue, and which cannot occupy space. It has a place, but no contents. And so of the whole line. Now the science of the laws of sensible apprehension is called by Kant Æsthetic: that of the laws of rational apprehension he calls Logic. Both these terms are used by him in a sense slightly different from their popular acceptation. I begin with æsthetic, or the laws of sensible apprehension.

§ *a. Æsthetic.*

In making myself acquainted with the surface (without at present troubling myself about the outline) of this full moon, my eye or my attention travels along bit by bit over a somewhat that is or appears to be stretched out in space. I will not here enquire what Space is, either by asking how we have come by the notion of it, or even, in

any precise way, what we mean by the notion now that we have it. I will at present take it in its ordinary popular meaning, as a sort of nothing which contains or is the place of everything,—that is to say, of all material things. It is in this sense regarded as nothing,—that, if any object occupies the whole of a given space, we suppose it fills it, and if the object is then removed and no other thing comes in to take its place, we say at once that all that was there is gone, and nothing remains. And yet the space remains: we cannot even in thought, nor by any effort of imagination, get rid of the space. In this sense, space is nothing, and yet an obtrusive nothing, which we cannot get rid of.

Our full moon, then, is in space. And my perception of it is in, and occupies, Time. How rapid soever may be my survey, it yet must, if I think of it, have taken up some time. I cannot draw a line, either with a pencil or in thought, without beginning with a point or spot and carrying on my line from spot to spot, and this takes time. In my survey of the moon's surface, I have had to draw many lines, for my attention has had to pass from point to point. Again, if I have to add or piece together objects which lie side by side in space, which I have to do in order to apprehend a surface, that process must have a beginning and a continuance in time; that is, must occupy some time. And this is true of every similar, that is of every sensible, apprehension.

Thus Space and Time, whatever they may be in themselves, are something which must be present to my mind, not in this or that sensible apprehension only, but in every one of my apprehensions. However diverse these apprehensions are, whether I am looking, or hearing, or touching, or tasting, or smelling,—for it would be easy

to show, were it not too obvious to need it, that the objects of every one of our bodily senses appear to my mind to occupy space and time too,—I say, however diverse the particular object noted by any sense, the space and the time are capable of no diversity as to kind, but only of different degrees of quantity. This object seen may occupy more space, or take a larger time to see it, than that object touched may occupy or may take to go over it by contact: but the space is the same kind of space, the time the same kind of time, in either case. It follows that my perceptions of space and of time are not given by sensation, but are contributed by my mind itself, though it is true that sensation, or repeated sensation aided by comparison, may awaken those perceptions. For, if two sensations, wholly dissimilar in every respect, awaken or occasion a thought which is identical in both cases, that identity of species must be owing to something in the nature of that which alone is common to both,—that is, the self or mind which is the subject of both the sensations.

For this reason, Space and Time are pronounced by Kant to be the pure or *a priori* forms of sensible apprehension: that is to say, they are like the mind's camera on which the images of the external world are thrown; the mind's canvas on which its pictures are painted; empty receptacles in which its knowledge of natural objects is stored; they are functions, in short, of the mind itself, by means of which one portion of its work of gathering in idea-images is performed. They may be called passive functions, or receptivities, since it is in or upon these that the idea-images are presented.

§ *b. Logic.*

Logic is a word that is made to do duty in various capacities. We are now dealing only with the applied logic of psychology, and the word is here used merely by way of contradistinction to Kant's Æsthetic. Our intellectual survey, the intelligent portion or aspect of our conscious life, consists of two distinguishable portions, one of which we may call direct intuition or perception (*Anschauung*), which is the mere semi-passive receiving of impressions given by this or that outer or inner sense, and the other we may call the forming of conceptions (*Begriffe*), which is the active piecing or binding together of these perceptions under relations, so as to form them into wholes; each of the related clusters thus brought together then becoming an object of thought or of knowledge, which for brevity we may simply call an object. Thus perception is simply the *taking-in*,—imbibing through the senses or feelings; conception the *taking together*,—or gathering into a group. Perception may be either outer or inner; outer, when we apprehend a colour, or a sound, an impression of touch, or the like; inner, when we apprehend a modification of our own minds, as pain, anger, love, and the like. I call perception semi-passive because it is not quite passive, since it requires a certain exertion of attention,—for in complete abstraction sights and sounds may be unheeded, and so for any purpose of knowledge may be as though they were not; but it is passive by comparison with conceptions, because the latter require, not only attention, but likewise a further mental activity superinduced upon attention. The Kantian term *Anschauung* is sometimes translated as "intuition," which is no doubt more literal than "percep-

tion." *Anschauung* is the looking, not into, but *at*: and, used by analogy from the sense of sight to all the other senses, inner as well as outer, it denotes precisely the thing here intended. But "intuition" has in our metaphysical language acquired a meaning somewhat different from this, while "perception" has been used, at any rate amongst English metaphysicians, to denote precisely the German *Anschauung*, with this modification only, that it has sometimes been tacitly limited to the apprehension of outward, as distinguished from inward, impressions. We have only to discard this limitation, which is by no means universal, and then, understanding that there may be a perception of feelings no less than of sights and sounds, we shall have a word that exactly serves our purpose. We have now, therefore, simply to direct our attention to the distinction between perceptions and conceptions.

Thus much concerning the use of words. Now let us turn to the things denoted.

Do words follow or precede thoughts?

How do I form into an object that knowledge which I gather together by looking at, let us still say, the full moon? I think of the cluster as a whole, for I have given to it one name, the moon. Here at once arises the question, on which to a great degree depends the fundamental difference between the English and the German schools of philosophy: the English being strongly nominalist, the German either realist or, to adopt the phrase employed by Dugald Stewart, conceptualist. The question is this; do I think of the moon as one thing, because it has one name, or has it one name because I have first thought of it as one thing? In other words, do names precede thought, or does the thought lead to the giving of

the name? This question, rightly understood, opens out a large controversy, concerning which there is much to be said on both sides. We are not to suppose that the disputants on either side are men of such feeble intellectual powers as to have taken up ground clearly untenable. No one maintains that words have any other origin than the necessities of human thought, or that words are given *ab extra* and curtail the liberty of the human intelligence. Men coin words as they need them, and no doubt men thought in some way concerning that cluster of sensations to which we now give the name of the moon, before that name, or any name, had been given to it. The question really is, whether the name was really given for convenience of reference, because that cluster was always seen in company one part with another, and so one name is given, just as we speak of a flock of sheep or an army, as a sort of useful shorthand; after which the oneness of name has led, by a natural illusion, to our fancying the entire cluster, the moon, to be one thing: or whether, on the contrary, men first had in their minds the thought that the aggregate of these sensations proceeded from an object which was one thing, and had an objective or real unity, for which reason they gave to it one single name. I do not propose, in this merely introductory essay, where all we are aiming at is to gain some general knowledge of the principal points in issue between the English and German schools, to discuss the arguments on either side of this important controversy. It is enough to say that the side taken by the Germans is the opposite to our own. They hold that the unity of name proves an antecedent unity of thought: that is to say, that the mind really does think of the moon as one thing. On this assumption, *i.e.*, accepting as our basis that we think of

the moon as one thing, we are to consider what is included in the fact that we have this thought.

To conceive an object is to draw the many into one.

There are in fact three distinct stages in this seemingly simple process of looking with attention, for the first time, at a single object,—there is first the glimpse or confused general impression, in which the object is perhaps noted as one, before its parts have been examined; then the examination of the parts, going over and round them as they are side by side in space, drawing as it were with the mental vision every line from a point, every surface from a line; and lastly there is the gathering of the parts into unity, and forming the final judgment that all these are parts of one whole. Our survey is not complete until this final step has been taken.

Now what is this final judgment, by which we pronounce the many to be one? How can the many be one? That is one of the oldest questions asked by philosophy. It is difficult, for it is something which we cannot possibly imagine: this "synthesis of the manifold," as Kant terms it, this drawing of the many into unity, is a process which we strive in vain to picture to ourselves, or in any way to represent to our imagination: yet it is a process which unquestionably takes place,—indeed thinking, or the building up of knowledge, would be impossible without it. Here, in the formation of an idea-image of the simplest kind, an image that has no change in it, and is given by a single sense, we have the presence of a preter-imaginable, or purely intelligential, function of our nature.

Relation is unimaginable.

As we follow this thought out into its detail, the

contrast between the two functions becomes only more marked. This whole has relations with its parts, and it is composed of matter and form. Every relation is unimaginable: for every relation involves the comparison, *i.e.*, the bringing together of two objects into one act of thought, and in a single mental process grasping the thought that they are two and yet are to be measured against one another, in such a way that some sort of likeness or unlikeness must be discerned between them. Likeness and unlikeness are unpicturable. I see a patch of yellow on a dark blue ground. I have a mental picture of the yellow, and a mental picture of the dark-blue, and these two are the only mental pictures I have. These two, side by side, suggest to my mind the thought of a dissimilitude between them. But this dissimilitude is a mere naked thought, absolutely unpicturable: it contains indeed an ingredient the very opposite to the picturable, namely the negation; for it contains the thought that there is about the yellow a somewhat which is *not* in the dark-blue, and conversely. This negation is found again in my construction of form, which, as has been shown, is, in the case supposed, the drawing of an outline made up of points without colour or extension,—points which are reached by the naked thought that here is no longer yellow and not yet dark blue.

The several kinds of relation.

Can I, without running on beyond the design of this essay, here say a few words about the different kinds of relation? We have, between the parts and the whole, and between the matter and the form, of our image of the full moon, specimens of the four different kinds of relation, —what Kant terms the Categories,—namely, quantity,

quality, cause or substance (relation proper), and modality. The relations of the parts to the whole suggest to our minds the ideas of Unity, Multiplicity, and Totality; the moon is one, its parts are many, its parts make up a whole: also those of Quality, which in their pure abstraction are Reality, Negation, and Limitation; the yellow colour is real, the boundary-line is a negation, and is a limit: those of Relation proper; the moon is the *Substance* of which this yellow colour and this roundness are attributes, the moon as object is the *Cause* of the sensations I am conscious of, the several parts of the moon are bound together in *communion*, as parts of one whole, each determined by and determining the position in space (and therefore the existence for me) of its immediate neighbour: and lastly, those of Modality, or the relation of the object observed to the observer; that is to say, the existence of a real moon, as an object external to myself, is *possible*, the existence of a moon as a phenomenon present to my perception is *actual*, and some of the properties of this phenomenon, *e.g.* its extension in space, are necessary. Now every one of these categories is, in itself, absolutely unimaginable. Yet without them, I really cannot frame to myself that idea-image of the moon, such as I find it to exist. Here then we have Thought as a faculty different in kind, and in extent of range, from Imagination.

Of idea-images which undergo change.

This is so, even while we are dealing with the simplest kind of idea-images, an image unchanging, and of a single sense. Go on a step further. Observe the moon night after night, as she changes from crescent to orb. You think this changing object is the same moon: I will

not stay to ask why you think so, I will ask simply what you mean by saying you think so. Can you imagine an equivalent for this thought? Plainly not; for no image can be at once orb and crescent or indifferently either: an image must be concrete, definite, and containing no contradictory attributes. My notion or conception of an object which changes or can change must, then, be something different from a perception or idea-image. Or again take the case of an object which I can at once see and touch, and yet think as one thing, *e.g.*, a red billiard ball: what is it which combines or brings into one the red colour I see and the hardness or smoothness I feel? Nothing, I suppose, but an inference of my reason, based on the fact that these two sensations come and go in company, or are synchronous, as often as I feel them. This inference leads me to think that this particular redness and hardness are attributes of one and the same substance. This relation of inherence or subsistence, the relation of a thing to its qualities, appears to me perfectly simple and intelligible, until I begin to think seriously about it, and then I discover not merely that I have hitherto taken it for granted without understanding or being able to understand it, but that I must still continue to do the same: for the relation of attribute and substance is something I cannot define, nor yet in any way picture to my imagination. Here again I find the reason transcending the powers of the imagination. As for telling me, as James Mill has done, that the very idea of a substance is a mere illusion, and that there is in nature nothing but a phantasmagoria which mocks me with the pretence of being attributes of substances, all that leaves the difficulty untouched. The question, at this point of our enquiry, is not: Do or do not substances,

external to the mind, exist, but, what is the nature and meaning of that mental process by which we distribute the isolated and heterogeneous perceptions of the senses, as attributes, under substances? Truth or illusion, the inexplicable character of the process remains the same.

Of general or class-conceptions.

As yet I have not said one word about those conceptions which originally, amongst the schoolmen, formed the exclusive subject of this controversy, namely, general or class conceptions. At the point we have now reached, we can readily see that the process by which these notions are formed is not essentially different from that by which the idea-image is formed. Even for this latter there is needed a certain conjunction of the two mental operations of perception and conception. An idea-image is made up of a group of perceptions welded together by certain relations, which last involve a process of conception or grasping together,—a process entirely unimaginable. An idea-image of an object that changes, or of an object apprehended by two or more senses, cannot at once be simple and uniform, and also adequate to its corresponding thought. The substantial identity of a changing object like the moon is a conception which has been suggested by numerous idea-images, and is suggested in spite of their differences. The differences are such as to make it impossible to combine these several images in one image: we cannot picture to ourselves such an image as can be indifferently orb or crescent: we cannot therefore imagine the moon such as we think it. Now from substantial identity to specific identity,—from the one and the same thing whose appearances vary, to the one and the same

species of things whose individuals differ,—is an easy step. A triangle, as such, is always the same, so far as it is an object of thought; it is always a plane figure, completely bounded by three straight lines; but as soon as we begin to imagine it, we see that it has as many varieties as the aspect of the moon; and just as we cannot bring into one image the orb and the crescent, so we cannot bring into one image an equilateral and a scalene triangle: but on the other hand, just as we think orb or crescent indifferently to be the same moon, so we can think equilateral and scalene indifferently to be, not indeed the same individual triangle, but the same in species, as alike belonging to the class triangle. In other words, we can as easily think, though we cannot imagine, a class of objects, as we can think, though if it varies we cannot imagine, a single object. Thus classes, like objects, are not mere names, but are real conceptions.

Why general conceptions seem to be obscure.

I own there is something baffling about all these unimaginable notions, whenever we look at them very closely, and try to define them. If I am asked to explain precisely what I mean by the word "not," or by a negative in general, I own it is possible to meditate over an answer till we grow bewildered, and are ready almost to acknowledge that we do not know what we mean. So if I am asked what I mean by cow, or dog, or triangle in the abstract, as distinguished from any particular specimen of one or another of these class-names, I am conscious of a certain obscurity. I suspect the reason is that, by a habit drawn from practical life, I endeavour, when I find something at once obscure and general, to make it clearer to myself by taking some particular instance. Am I

asked, What do I mean by a dog, I think at once of some dog I know, and call up an image of him before my memory, and use this as an illustration. Knowing that this is my habitual procedure, I am ready to agree—at least at the outset—with one who argues, as Berkeley does, that what I call a general notion is nothing more than a name, the uttering of which, by the association of ideas, calls up first one particular image and then another, and the thought is only general because it serves for one image as well as the other and half a dozen more. But a little reflection shows me that this after all will not do. What is it that assures me that any one of the half-dozen dissimilar images will serve equally well for a specimen or example of my thought,—of the notion I have defined by the word dog? Is it not a judgment,—that is to say, a mental operation different in kind from an image? And does it not contain or carry with it the further judgment that any one of these half-dozen images, taken singly, is an inadequate expression of my thought? If so, why am I puzzled, and why does my thought seem to grow more obscure the more perseveringly I endeavour to define and make it clear to myself? I think the reason is that in this attempt to define and make clear, by taking single instances in order vividly to portray the general, I have been committing the error gently ridiculed by Descartes, of using my imagination in order to give precision to my thought,—employing one mental function, in fact, to do the work of another. The individual is more luminous and vivid than the general, simply because the individual is imaginable, which the general is not. But to use the individual in order to explain the general, is as if one were to try to see clearer in mathematics, by looking more closely at the diagram. We

ought, on the contrary, to detach our thought as much as possible from the diagram, and reason without its assistance. The use of the diagram is like the use of corks in swimming,—an aid to beginners which can hardly be too soon dispensed with. The moment I clearly see that I can think that which I cannot imagine, I must leave off using my imagination, so far as I can, while I am occupied in following out thoughts of that kind. I know what I mean when I say that A differs from B. If now I want to pursue my thought as to the nature of difference in general, I must leave A and B behind: that is to say, I must leave behind the only portion of my original thought which was in any degree imaginable. My next step is: difference involves a negative, viz., a something in or about the one object that is not in the other.

Negative conceptions.

If I go on to consider, what is a negative, one thing is certain, no effort of imagining can help me. "Nothing" is unimaginable. Yet "nothing" is an object of thought. Or again, my conception of a limit is, as has been seen, unimaginable: yet it exists. If I can think of a limit, and can think of the negation of every thought, I can think of the absence of limit, or, in the most abstract sense, the Unlimited, that is, the Infinite, or the Absolute,—for in this sense of being unlimited, the Infinite and the Absolute are one. Of course I cannot imagine it, but that does not hinder me from thinking it. To say, as Sir W. Hamilton has said, that "thinking of the negative is the negation of thinking," is merely to throw off a smart phrase that will not bear investigation. It is, if you please, the negative of imagining, but not of thinking.

So far, indeed, is this saying from the truth, that we may boldly affirm the direct contrary. Every conception, that is to say, every mental act whereby two perceptions are brought together or in any way compared, has annexed to it, as its complement, the conception of a corresponding negative. Let A be any object, and *a* any predicate, we affirm with confidence that A is either *a* or not *a*; and conversely that *a* either is in A or is not. More generally still, every perception whatever has its negative conjoined to it like a shadow or background. Everything that can appear before our consciousness has also the power not to appear. Not only is it true that we cannot think without negatives, but we cannot so much as conceive the possibility of thinking without them. Thus, we may rectify Hamilton by simply adding the word "not,"—*Not* to think the negative is the negation of thinking.

Chapter III.

Theology.—God as the Absolutely Perfect.

Introduction.

In the two last chapters we have been occupied with the Subjective,—the Self or Knower,—considered in the first chapter collectively and in the second distributively. We are now to attempt the transition to the realm of Not-self, or the Objective. The thing which the Knower knows most directly is, *that* he knows; the next, *how* (in what manner) he knows; the last—which is now before us—*what* he knows. The object (other than himself) of his knowledge can only be, either God, or the

world or universe of things external to himself. Thus our first enquiry referred to the nature of knowledge in general; our second, to the kinds of knowledge, viz., perception and conception: our third, since Descartes has placed the knowledge of God as antecedent, in logical order, to that of the universe, refers to God, regarded as an object of knowledge. We must not break the sequence of thought which Descartes has adopted, unusual, and apparently almost unnatural, as it is, since it is a necessary consequence of the connection in his own order of thought. We must therefore take theology before cosmology.

Descartes' own description of his Meditations is, a book "in which are demonstrated the existence of God, and the distinction of soul from body." To demonstrate these two things, then, is the main purpose, we must take it, for which he writes. All that has gone before was merely preparatory, and in this and the following chapter we are to consider the questions, for the sake of which the book professes to be written. That introductory business was no doubt necessary, to clear the ground. It was necessary to show that certainty is to be obtained, and how. It was also necessary to show that there is a mode of thinking different in kind from imagining; if only to meet a difficulty *in limine*, arising from the indubitable fact that an absolutely Perfect Being, containing the element of infinity, cannot possibly be the object of imagination. And yet, it may be, and indeed in the general opinion of German as well as English philosophers is the fact, that that merely preliminary work was the only thing of positive value which Descartes accomplished. He was the precursor of modern philosophy, in that he made the first step or two in the right direction,

and this glory will not be wholly taken away from him, if it shall be proved that his attempts to take further steps along the same road were failures. Whether this was so, is what we are now to consider.

§ 1. *General review of Descartes' argument.*

Descartes' argument, reduced to its barest outline, is as follows:—I exist: I am an imperfect being, and yet have in me the idea of a perfect Being: that idea I cannot have given to myself, nor can it have been given to me by any being less than perfect: its existence proves, then, that a Perfect Being exists.

These momenta of the argument may be expanded as follows:—

I. *I exist.* This, for the reasons given, is a certainty uplifted above the range of doubt. It is the thing of all others most certain. So says Descartes.

We practically agree with him. That is to say, while denying to the proposition, "I am," that certainty of the first order which belongs to the subjective existence of the perception at a given moment present to my mind, we yet acknowledge that this primitive apperception of identity, by which we bind together the past and the present, as being states or modifications of the one "standing and abiding I," is so distinctly a part of the original equipment of our nature that it would be unreasonable not to attach credence to it. It is a sort of intellectual instinct, of the same order as the instinct which leads us to believe that our memory and our reason, in themselves, work true,—are witnesses to truth, not delusion.

2. *I am an imperfect Being.* For, I wish for more than I have, and I at any given moment wish to be more

than I am. My very starting-point, "I doubt," shows this; for to doubt is to feel the absence of a certainty of knowledge which I desire to possess. Of my feelings, some are pleasurable and others painful: I desire the continuance of the former and the removal of the latter, yet I find that neither is wholly in my own power. That I strive, that I aim at a perfection not yet reached, proves that I am not yet perfect: that my striving never reaches a goal, but is continuous, proves that I never am perfect. Though my knowledge, and though my improvement, may go on for ever increasing more and more, yet, from the very nature of these processes, which are cumulative, I am sure, says Descartes, that I shall never reach an actual stand-still,—a state in which I shall desire to know no more or be in any sense better. The very fact that my nature is progressive, proves that it is imperfect.

Here, I think, we can entirely agree with Descartes.

3. *I have in me, however, the idea of a Being that is absolutely perfect.*

This is not a mere negative idea, for it is the model after which I strive. It is an idea of reason, and as a thought it is clear and distinct, although it is not picturable to the imagination.

If it were a mere negative idea, formed by first thinking of a limit and then of the absence of a limit, then, undoubtedly, no inference could be drawn from it as to the objective existence of perfection or of a perfect Being. Such a negative idea would contain no "reality," that is to say, would furnish no matter whatever of positive knowledge. But the fact remains, I strive,—I aim at something further or higher. Whence comes to my mind the idea of this something higher? What is it that makes me feel I am imperfect? I must strive after a

somewhat somehow given to me; in other words, my striving must be the working after a model. Where is this model? Nowhere, for me, unless it exists within my own mind.*

All striving is towards that which, with reference to the motive of the striver, is considered better than that which has been already attained. We strive towards that which is regarded by us for the time as for us the best, and we do not strive after any imperfection in it: it is *quoad* perfect that we strive after it. In other words, we strive towards an apprehended perfection. We must, then, have some power to apprehend a perfection which we do not as yet possess. If we were simply imperfect, and nothing more, we should aim at no more, for we should know no more: we should dwell contentedly within our limits, without even knowing that they were limits. But our nature is, to be bounded, and yet to have an impulse urging us beyond that boundary; and the secret of that impulse is, that we have within us the idea of perfectness, in company with a consciousness that we ourselves are not perfect. The very fact that my nature is progressive by striving, proves that I have within me a model to strive after.

But I have and can have no idea of an excellence of any kind, which is at once greater than anything given by experience, and yet short of perfection. I have and can have no sources of knowledge except experience and innate ideas; and I have no innate ideas of any object at once transcendent (*i.e.*, above experience) and imperfect.

* "On what principle shall I understand that I doubt, that I desire,—that is, that something is wanting to me,—if there were in me no idea of a more perfect Being, by comparison with which I recognize my own defects?"—3rd Med., Ante, p. 162.

It is otherwise with the absolutely perfect: of this I certainly can, according to Descartes, form an idea without the aid of experience.* This idea of the perfect, then, from whatever source it may come, is truly in me. I am an imperfect being, yet having in me the idea of a perfect being.

That the perfect cannot be imagined, in no way proves that it cannot be thought.† This follows from what was said in the preceding chapter.

I think we had better reserve our judgment on this third article. Here is Descartes' argument on this point. We may have to consider the question more at large by and bye. In the meantime, assuming that he has made out his case thus far, let us hear the remainder of his demonstration.

4. *This idea of a Perfect Being I cannot have given to myself, nor can it have been given to me by any Being less than perfect.*

The argument to prove this is set forth by Descartes in the Third Meditation.‡ Can I have given this idea to myself? It is a positive part, a primitive ingredient of, an addition to, my own nature: it is as distinctly something more than the rest of my nature as one of my senses is: I might, for aught I can see to the contrary, have been in a manner complete, and, indeed, in one sense should have been more complete than I am now,

* For example, I can form the idea of a perfect circle: but if I attempt to form the idea of a circle, not perfect, but as nearly perfect as can be drawn by human handicraft, I am utterly baffled, and can only have recourse to experience, and seek out the best specimen I can find of a circle so drawn, which however I know can only be an approximation, for a better circle may possibly be drawn hereafter, though how much better I cannot tell.

† Ante, pp. 258-259. ‡ Ante, pp. 164-167.

without this idea; since the striving towards a higher is a mark of imperfection, and so of incompleteness in the striver: so that I could only have given this idea to myself in case I were, wholly or partially, the first maker of my own faculties. It is hardly worth while arguing seriously the question, whether I am the first maker of my own faculties: the irony of Descartes is sufficient: if I were so, how could so powerful a being have been so foolish as to stop precisely at this point,—at the point which is simply the most uncomfortable of all for stopping at? How could I have made for myself the idea of a perfect Being, and the desire and impulse to strive towards it, and not have gone on at once to make myself that perfect Being I aspire after? It could not be for want of power: for, having accomplished the more difficult task of making myself out of nothing into the being that I now am, it would have been a light addition to the task had I gone on to complete myself after the idea of perfection I had already framed.

Can it be, then, that, not myself, but some more exalted Being, yet a Being less than perfect, has been the first maker of this self, such as it is? Here we only shift the difficulty one step. This imperfect Being has made me, and given me the idea of a perfect Being. He must then first have himself had this idea, and, on this hypothesis, he must have first made it. How came it then that he stopped short of making himself perfect? The reproach which in the preceding paragraph I addressed to myself, I now apply to this imperfect creator of myself.

Thus it is evident that this idea of a perfect Being cannot have been given to me by myself, nor by any other Being less than perfect. It does not come through the senses, for these give only the imperfect; nor can I

remember any time when this idea first entered my mind as it were suddenly or as if from without; whence I must conclude it innate. Nor can it have come to me from several causes conjoined, or be as it were a compost; for the idea is one, simple, inseparable.

In all this—reserving only the question whether such a positive idea exists — I think we can agree with Descartes.

5. *Finally, the existence in me of the idea of a perfect Being, since it cannot have come from any source except a perfect Being, proves that a perfect Being exists.*

This follows necessarily, unless, indeed, we refuse to concede the axiom, *Ex nihilo nihil fit.* The maxim, that nothing can begin to exist without a cause, does certainly carry us all the way to Descartes' formula, that the cause must contain in itself as much, or more, of reality as there is in the effect; for, were it not so, there would be something in the effect which was not in its cause,—in other words, there would be something which began to exist without a cause.*

This axiom, *ex nihilo nihil fit,* is said by Descartes to be given to us by the light of nature.† In other words, he regards it as a primary belief or intuition. It is the law of necessary causation in its simplest form. We are to remember, indeed, that if we now accept it as valid without asking for proof,—and proof neither is nor perhaps can be offered,—we are going a step beyond the domain of absolute certainty, as defined in the second chapter of this commentary; for in that chapter our doctrine of primary belief was limited to the postulate, that our natural faculties of sense, memory, and reason, in themselves work true, — a postulate which does not seem

* Ante, p. 157. † Ante, p. 157.

necessarily to carry with it this axiom. We can only concede this axiom, then, provisionally, and with the mental reservation, that perhaps hereafter, when we shall be ripe for a more searching scrutiny of the deeper places of philosophy, it may be necessary for us to re-examine the grounds on which we give credence to first axioms of this nature.* We believe, it appears, that nothing *begins* to exist (for the word *fio*, to become, implies a beginning) without a cause: we also believe, however, that something exists from all eternity without a cause, if we believe that God exists without a cause. Thus the necessity for a cause attaches itself, it seems, to every beginning, and to beginnings only.

* I purposely refrain, in this Commentary, from bringing forward the doctrine of self-evident axioms, primary beliefs, or undemonstrable truths, in order to keep clear for the present of debatable ground. I shall only note in passing that it is the doctrine of Aristotle as well as Plato. We have it on the unwilling but impartial testimony of Grote. "The Aristotelian theory is, that there are certain propositions directly and immediately true, and others derived from them by demonstration through middle terms" (1 Grote, Arist. p. 329). It is true that Mr. Grote adds, "But I cannot think the proof satisfactory" (p. 330). And again: "Aristotle has laid it down that there can be no demonstration without certain *praecognita* to start from; and that these *praecognita* must, in the last resort, be *principia* undemonstrable, immediately known, and known even more accurately than the conclusions deduced from them. Are they then cognitions, or cognizant habits and possessions, born along with us and complete from the first? This is impossible (Aristotle declares); we cannot have such valuable and accurate cognitions from the first moments of childhood, and yet not be at all aware of them. They must therefore be acquired; yet how is it possible for us to acquire them? The fact is that, though we do not from the first possess any such complete and accurate cognitions as these, we have from the first an inborn capacity or potentiality of arriving at them" (ib. 369).

In this last sentence we have an anticipation of Leibnitz.

Why should this be? Here is a problem which looms before us in the distance.

Still, the belief in this axiom is certainly somehow rooted in our nature. If we can bind together these two beliefs, that nothing begins without a cause, and that an absolutely perfect Being exists, in such a manner that the two shall stand or fall together, it will have been a great achievement, and one that may well suffice in these first lessons in philosophy. Let us then for the present agree to accept the axiom.

Here we have the entire demonstration. We have accepted it all, with one reservation only, having reference to the Third Article: Is it quite clear that we have in us the positive idea of an absolutely perfect Being? Let us proceed to consider the point thus reserved.

§ 2. *Have we the positive idea of a Perfect Being.*

Following the method prescribed by Descartes, I must look within and question myself severely as to whether I have a "clear and distinct" idea of a Perfect Being. It must be clear and distinct, in the sense in which the idea of the identity of my piece of wax, amidst all the changes produced by a lighted candle upon its outward appearances, is clear and distinct; that is to say, the clearness, the distinctness, must be that of the reason, not of the imagination.

Now I do think I clearly understand what I mean when I think of any quality as being the best or most possible, and also when I think of several qualities as combined in one substance, and also when I bring these two thoughts into juxtaposition. I think so, though I see clearly that each one of these three processes lies out

of the range of my imagination. Let us examine the three. Whether it be from experience alone, or from experience aided by reason, I can distinctly apprehend the good and the better, the much and the more,—in other words, qualitative and quantitative degrees of comparison. To use the language of grammarians, I can understand the positive and comparative degrees of adjectives. If I give my mind to this thought abstractedly, — that is to say, leaving out of sight everything wherein one adjective differs from another,—I have now before me a thought which, though evolved from experience, is perfectly unimaginable. I have the conception of a graduated series. But I also find that the thought of a graduated series leads my mind onwards to an end —call it the beginning or the termination of the series— to a point at which the series reaches a maximum.* In

* This thought is developed by Kant in some such way as this: —Every series is necessarily carried on by our reason to termini which lie beyond the range of a possible experience. The only possible termini are the absolute or the infinite. Here, with reference at least to some kinds of series, there is a distinction between the beginning and the end,—the beginning must be the absolute, while the end may be the infinite. Thus with regard to any series of causes and effects which we may partially trace with the help of experience in the domain of phenomena, we are constrained by some unexplained law of reason to believe that there must be a first cause, that is to say, an absolute beginning, whilst there may be no absolute ending, that is to say the effects may go on working themselves out in fresh changes to infinity. But the two termini of every series apprehended by experience must necessarily be carried by the reason either to the absolute or the infinite. Whether this law of thought can be converted into a law of things,—in other words, whether we can legitimately infer that every such series, regarded as a Thing-in-itself, actually *is* either absolute or infinite, is a separate and a much deeper question, the

other words, I reach the superlative degree of my adjective: good has not only a better but a best, much not only a more but a most. The very structure of language proves the existence of this law of thought. How good that best is, or how much that most, I may be unable to find out either by measuring or by imagining. But that there is a maximum, and that that maximum is either infinite, if it be a greatest possible quantity, or absolute, if it be a question of quality, I seem unable to doubt. How it is that this aptitude or propensity comes to be in my mind, I do not at present stay to enquire: the question now before me does not require me to do so: it is enough for the purpose if the aptitude or propensity is actually there. It appears to me, clearly and distinctly, that it is. My mental habit (and that of all men) is, thus to supplement the finite and the imperfect series given to me in experience, by a thought which carries it on to the infinite and perfect. This is at any rate a regulative faculty of my mind; that is to say, it furnishes the rule by which I strive to advance, whether in practice or speculation, beyond the things which have been given to me in experience towards an ideal which lies further on. I see a line stretching on towards infinity, which marks the direction I must follow so soon as experience is left behind. I do not see, and cannot imagine, the terminus, but I have a mental assurance that a terminus exists. In other words, I can think, though I cannot imagine, perfection of any quality: and this thought is clear and distinct. That is the first step.

What substance is, and in what manner qualities inhere in a substance, are matters which I can by no effort

exploration of which belongs to a more advanced stage of metaphysical speculation than we have yet entered upon.

bring before my imagination. But the thought, as a thing of pure intelligence, is perfectly clear and distinct. I say truly, I feel sure, that I know this anger, that compassion, this hope, to be qualities of mine,—that is, to inhere in me as their substance: this colour, that hardness, this smoothness, to be qualities of the inkstand I at this moment see and touch,—that is, to inhere in them as their substance.* Knowing this, I know that I have a clear and distinct conception, that several qualities can inhere in one substance. That is the second step.

Lastly, I can discover nothing which prevents my bringing these two thoughts,—that qualities may, indeed must, rise to the absolute and infinite, and that several qualities may inhere in one substance,—into juxtaposition; and thus, by merely combining the thought of infinite or perfect qualities with the thought that qualities inhere in a substance, forming the conception of an Infinite or Perfect Being. For, the relation of substance and attribute has nothing whatever to do with the degree or quantity of the attribute: much or little, of quantity or degree, does not render it one whit easier or more difficult to conceive the attribute as belonging to a substance.

I can, then, form in my mind the idea of a Perfect Being; all the momenta of that idea are clear and distinct; and there is nothing in the piecing together of these momenta which necessarily disturbs that clearness and distinctness. As a purely intelligential, absolutely unimaginable, and immeasurable conception, it is one that I undoubtedly possess.

* This, I mean, is the popular way of thinking. How far colours, and other secondary qualities of matter, are not so truly qualities of matter, as relations of matter and mind, or rather effects of their relation, will be considered more at large in the following chapter.

§ 3. *Practical conclusion.*

Here, then, we may leave the argument for the present. Deeper and more difficult problems will no doubt open themselves out before us as we go on, and we may find ourselves driven, at least for a time, from the standing-point which Descartes here appears to have gained for us. I will lightly indicate one such difficulty which we shall hereafter (I trust) have to grapple with. It is to be observed that in Descartes' argument there are two momenta not as yet exactly distinguished from one another. I feel within myself an impulse to strive towards the better. This impulse has two aspects, an emotional and an intelligential aspect, and these are closely interwoven. The impulse itself is an emotion, the discernment of the better an act of pure intelligence. The latter belongs to Pure Reason, the former to Practical Reason. In which of the two, it may be asked, does this revelation of the existence of God, that is, of an absolutely Perfect Being, reside? Kant maintains that it does not reside in the act of intelligence; and this thesis he has argued out, with vast subtlety and power, in the latter part of the Critique of Pure Reason. But he no less emphatically maintains that this revelation does reside in the emotion; and this, by far the most really valuable portion of his labour, forms the entire theme of the Critique of Practical Reason. Our striving towards the better, he most justly says, is not felt by us to be a thing which we are free to follow or not to follow, in the sense that we may without blame do which we please. The aspiration towards the better carries with it a moral obligation,—is accompanied by a sense of duty. This, in his quaint phrase, is the Categorical Imperative:

not the Hypothetical Imperative, which is, "Do this if you wish to be happy;" nor the Disjunctive Imperative, "You must either do this or suffer such or such disagreeable consequences;" but, absolutely and without conditions, "This you must do." This Categorical Imperative not merely does not constrain the will nor interfere with its liberty, but is not even intelligible except upon the hypothesis that the will is really free. It is the command of a moral Governor laid upon his subjects, and its existence within the nature of man is a universal revelation of the existence, not simply of an absolutely perfect Being, but of an absolutely perfect Person, having moral relations with the souls or spirits of mankind. Thus the deeper investigation of the great problem here set on foot by Descartes brings us round at last, though not without long and painful wanderings, to the conclusion which he announced more than two centuries ago. But we come to it with a difference: it is now more fully developed and more distinctly articulated. It is no longer a conclusion which can be wrought out by the naked intelligence, disregarding the moral portion of our nature: no longer a demonstration that must convince a Mephistopheles as well as a Faust: it is obtained by the intelligence using as its material the moral portion of our nature, and is therefore a conclusive demonstration only for those who have felt what the sense of duty is.

Returning, then, to Descartes, let us for the present accept, as from our actual standing-point sufficiently proved, his fundamental proposition: the human mind bears in its very conformation a proof that an absolutely perfect Being exists. This proposition is the basis of Natural Theology; but the basis only. We may if we please call this a primary or internal revelation of God's

existence; but if we do, we are not to imagine that this can in any degree render unnecessary such secondary revelations as are to be found in nature, that is in outward experience, or in self-scrutiny, by which I mean the inner experience of our own phenomenal characters, or in that to which the name of revelation is ordinarily confined, that is to say in the unveiling, in some manner which lies outside of the reason, of mysteries such as reason alone could not penetrate. Concerning this last kind I am in this book silent, regarding it as a subject wholly outside the range of my present purpose. I merely say that no purely intelligential proof of the existence of a Perfect Being, as the First Cause of the universe, conducted after the method of Descartes, can by possibility render these other subjects of investigation or of faith unnecessary. The reason is that a bare conception of the intellect, such as this, can by no possibility satisfy the devotional aspirations of our nature, because the feelings can only be reached through the imagination, and the perfect Being of Descartes is, as such, absolutely unimaginable.

Descartes, indeed, as the immediate sequel of his proof, invites his reader to pause awhile, and linger over the contemplation of God himself, "to gaze upon the beauty of this marvellous light, to wonder, and to adore."* No doubt he is perfectly in the right, if he supposes a reader to whom this new demonstration comes, not as standing alone, but as a mere addition to, and confirmation of, that unscientific and perhaps unduly Anthropomorphic, yet at least imaginable and therefore affecting, conception of the Divine Nature which he already possesses: but, if the

* Ante, p. 168.

adoration is to be the immediate result of the demonstration, regarded as standing alone, the invitation is premature. This purely rational idea is a cold abstraction, unfitted to inspire adoration, which, as a feeling, can only be kindled through the imagination.

Is, then, the demonstration thus discovered by Descartes of no value? Far from it, its value is incalculable. It furnishes the rule by which all our secondary revelations —if I may call them so—given in the spectacle of nature, in human life and history, and in positive religions, are to be tested. Striving towards perfection, we know that perfection exists; and being merely creatures, we know that it must exist in the Creator. By this test we select amongst the phenomena. If nature seems here and there to present cruel and repulsive aspects, we judge by this test that these aspects are not expressions of the mind or purpose of the Creator; and we reasonably conclude that a deeper love must lurk behind these appearances, and it is only our own limitations which prevent our discerning it. If there seem to be mysteries of evil in the nature of man, we know that there must be a yet deeper potentiality of good there, which can be, and we can trust will be, awakened into actual life and force, and will then have power to efface the evil by converting it into a higher potency of good. And if, in what we deem to be a revealed religion, or in this or that form of it which we have been taught to believe, there be dogmas which seem to contradict the perfectness of God, we know, still by the same text, that the contradiction can only be apparent; that is to say, either it is the limitation of our own faculties which prevents our harmonizing the apprehended dogma with the known perfection, or else that the dogma is not true. Thus we see in every aspect that what Descartes has laid

down, though it be but a cold and dry abstraction, is, if nothing else, at least an effectual and powerful instrument for separating truth from falsehood.

Chapter IV.

Nature-Philosophy.

The distinction of mind and matter.

From the knowledge of God as the absolutely Perfect Being, Descartes passes on to consider the knowledge of an universe of infinite or imperfect objects external to our selves.

The method of this transition is curious, and, one may say, original. Descartes is sure an outer universe exists, because he has convinced himself that God, being perfect, cannot or will not deceive us, and because such a universe appears to us to exist. That appearances do in fact often deceive us, he acknowledges; but explains, by saying that in such cases it is really we who deceive ourselves, by improperly using our will to form and pronounce judgments, when the materials for a sound judgment are wanting, so that our right course would be to hold our judgment in suspense.

§ 1. *Descartes' doctrine of substance.*

The universe of things knowable by man is distributed by Descartes under three heads or substances, God, the soul, and matter.

In the strict and proper sense of the word, he says, God is the only substance; that is to say, the only being that is self-originating, self-sustaining, absolutely inde-

pendent. But, in a secondary and subordinate sense, there are likewise two substances, or classes of substance, which stand over-against one another as being alike dependent for their origin on the primal substance (God), and alike independent of each other and of anything else: namely, mind and matter. The essence, or peculiar nature, of mind is thought; that of matter is extension.

This is with Descartes a fundamental doctrine, which recurs continually in his writings. It is perhaps most concisely and strongly expressed in the *Principia Philosophiæ*.

"By substance," he says, "we can understand nothing else but a thing which exists, in such a manner, that it requires no other thing in order to exist. That substance, indeed, which stands absolutely in need of no other thing, can only be understood as one, namely, God. All others, we conceive, cannot exist except by aid of the concurrence of God. Hence it is not fitting that the name of substance should be applied to these and to God *univoce*, as they say in the schools; that is, no signification of this term can be distinctly understood, which is common to God and his creatures.

"Bodily substances, however, and created mind, or thinking substance, may be understood under this common conception, that they are things which need only the concurrence of God in order to exist." He adds, that substances, as such, are not perceived by our senses; but, because we perceive attributes, and attributes must be attributed to something, we conclude that some existing thing, or substance, to which they may be annexed, must be likewise present. Every substance must have some principal property, which constitutes its nature and essence, and to which everything else is referred. "Namely, extension in length, breadth, and depth, constitutes the nature of bodily substance; and thought constitutes the nature of thinking substance. For, everything else which can be attributed to body, presupposes extension, and is only a certain mode of an extended body; just as all that we discover in our mind is only so many different modes of thinking. Thus, for example, form (figure) cannot be understood unless in some

extended thing; nor motion, unless in an extended space; nor yet imagination, or sense, or will, unless in a thinking thing: whilst, on the other hand, we can understand extension without figure or motion, and thought without imagination or sensation."*

Thus we have, subordinated to and dependent in a certain sense upon God, two parallel substances, so to speak, mind and matter, of one of which the essence is Thought, and of the other, Extension.

§ 2. *The two substances: Thought and Extension.*

Such being the doctrine of Descartes concerning substance, we are in the next place to consider the line of argument by which he deduces it from his own fundamental principles.

The argument, so far as it is set forth in the Meditations, may be summarized as follows:—

That which I "clearly and distinctly" apprehend, in the sense explained in Chapter II. of this Commentary,—that is to say, that which my natural faculties appear to constrain me to think, in such a manner that I cannot think otherwise without doing violence to myself,—is true. For, were it not true, I should have been so created as to have been deceived or a self-deceiver, or, in one way or another, I must recognize the working of a *Deus quidam deceptor;* which, from my present standing-point, I must put aside as impossible. A perfect Being could not have made me with a nature prone to believe the validity of my natural faculties, had those faculties been so constituted as to lead me away from, instead of towards, truth.†

It is true, I may misuse my natural faculties, and by so

* "Princ. Phil.," Part 1, §§ 51-53. † Ante, p. 170.

doing may deceive myself. The most common way of misusing them is, by allowing my will to do its part towards forming judgments, when I am as yet imperfectly provided with the materials for doing so. Overhasty or careless judgments are thus the principal, if not indeed the only, causes of error.* But in every such case I have within me the means of detecting and correcting errors thus engendered.† Neither the capability nor the fact of going astray militates in any way against the competence of my natural faculties. It still remains true that what I clearly and distinctly perceive, not necessarily at first, but at any rate after a careful sifting and elimination of all possible errors arising from over-eagerness of the will, represents that which actually exists.

It follows that, if I plainly and distinctly apprehend two things as separate from one other, these not only can be, but are, really separate.‡ I can and must think thus concerning matter and mind or soul.§ These, then, are two distinct things.‖ What is it which distinguishes them? I find there is in matter one, and only one, pervading quality, which exists wherever matter exists, or in other words, which I cannot conceive matter to be without. That quality is extension, or the occupying of space. Every thing else which I regard as a quality of matter, such as colour, resonance, weight, hardness, motion, even form, is accidental, in the sense that I can conceive, and often actually perceive, matter to be without these qualities: but the occupying of space is what I cannot conceive matter to be divested of. Similarly with regard to mind, that which alone is essential to, and inseparable from, my conception of it is the

* Ante, pp. 174-176. † Ante, p. 178. ‡ Ante, p. 193.
§ Ib., p. 193. ‖ Ib. p. 195.

quality, if I should not rather call it the essence, of thought. Mind that cannot think is to me as unintelligible or contradictory a phrase as matter that is not extended. And these two properties, thought and extension, are mutually exclusive. I regard thought as not occupying, indeed as incapable of occupying, space;* matter as not possessing, indeed as incapable of possessing, the power to think. And these opinions of mine are no careless, random, overhasty prejudices: they have been in me, though I know not whence they came, from as long ago as I remember; and I may turn and probe them as I will, try to get rid of them with all violence of effort I can exert, yet they cling to me, and it appears to me that I can as easily cease to be a rational being, as cease to entertain these opinions. They are what I must call primary notions, or in the phrase of Descartes, clear and distinct ideas.

A confirmation of this reasoning is afforded by the fact that, so long as I confine my study to the laws of extension, regarded solely by itself, or to the laws of thought, regarded solely by itself, I obtain results which carry with them the clearness and distinctness of necessary truths; that is to say, in the former case the truths of mathematics, and in the latter the truths of formal logic: whereas, if I turn my reflections to any of those accidents of matter in which there come into play the relations of matter to mind, or those accidents of mind in which there come into play the relations of mind to matter,—*e.g.* to optics or any other empirical science about material objects, or to the empirical laws of memory or imagination, I find myself entangled with difficulties arising

* Vide p. 194.

from the obscurity which hangs about the union of these two substances, and I can at last get no higher than to probabilities. That is to say, I have only an obscure conception of these latter phenomena. I come across such questions as these:—does colour, does sound, does weight, really reside in the object perceived, or in the sense, or in the mind that perceives? The images that rise before my fancy, images for example of dogs, and houses, and mountain-peaks, and all sorts of material objects, are these mental or material? If they are material, where do they exist but in my mind? If they are mental, how can they be counterparts or equivalents of things material? These difficulties, when contrasted with the clear certainties of pure mathematics and pure logic, ought to convince us at last,—however different our first impression on the point may be,—that we really have clear and distinct ideas concerning extension and thought,—that is to say, about the two substances, matter and mind, and their distinction,—and only very obscure ideas concerning those sensible impressions wherein mind and matter are implicated and as it were amalgamated or brought into fusion with one another. This is in fact what Descartes illustrated with his bit of wax brought near a taper. The only thing that we already and distinctly understand about the wax, he shows us, is that it is a thing or substance, having a substantial identity amidst its changes of appearance.

And so we arrive at the conclusion, summed up by Descartes in the Principia as follows:—"Thought and extension may be regarded as constituting the natures of intelligent and corporeal substance; and they should then be no otherwise conceived than as actually thinking substance and extended substance, that is, as mind and

body, in which manner they are most clearly and distinctly understood.'"*

§ 3. *Criticism of this doctrine.*

Here, then, we have the Cartesian dualism of mind and matter. Each is a subordinate substance: the two are united in God, but only in the sense that God is the cause of both: save in respect of this community of cause, each is regarded as completely independent of the other, having an existence of its own, dependent upon God only. Each has an essence of its own: the essence of body being extension, that of mind, thought.

This is a doctrine which all the successors of Descartes, not Spinoza alone but even Leibnitz, and still more emphatically Kant, Fichte, and Hegel, concur in rejecting and condemning, as a crude or coarse dualism, utterly untenable. And yet, at least in popular opinion, some such doctrine appears to be the prevalent one.

Now in criticizing this doctrine, we should begin by distinguishing two momenta of it, which in the "Meditations" are blended somewhat confusedly. These are: 1st, the belief that a something corporeal, external to the mind, exists: 2nd, the placing of mind and body on a sort of equality, as two independent substances existing side by side, and making up between them, as twin species, the whole created universe.

Descartes, being absolutely certain that he himself exists, and not less certain—finding the proof of it within his own nature—that an absolutely perfect Being, *i.e.*, God, exists, then makes what may be called a leap, a *saltus*, from the realm of knowledge or certainty to that of faith. "Since God," he says, "has so clearly given

* "Princ.," Part 1, § 63.

to me . . . a great propensity to believing that these ideas" (of external objects) "proceed from things corporeal, I do not see on what grounds I can understand that He is not a deceiver, if they do proceed from some other source than from things corporeal. Consequently, things corporeal exist."*

Can we take this leap with him? That of course depends on whether we shall be able to hold that the belief, that things corporeal exist, is one of the same rank, in respect to primary certainty, with the belief that we ourselves exist. If we think so, it will not only be as easy, it will be easier, for us to take this leap than it was for Descartes. For, we have already satisfied ourselves that we only hold this opinion, that we ourselves exist, as a matter of belief.† For us, then, no *saltus* will be requisite. If we find the same warrant for believing the existence of corporeal things that we have for believing the existence of our own selves,—*i.e.*, each man of his own self,—then we shall pass from one belief to the other without an effort.

Now there is, I think, a way by which we can accomplish this,—but it is not the way of Descartes, but a very different one, the way of Fichte; and it leads to very different results. The self, says Fichte, is an energy, or force, which is conscious of its own effort whilst it is putting forth each one of its own faculties, in attending, in feeling, in willing. It is conscious, too, of meeting with resistance to these efforts. Where the effort is, there is the self; where resistance is, there is the not-self. The soul is not more certain of the effort than of the resistance: not more certain, then, of the existence of

* Ante, pp. 194-195.

† Ante, p. 222, *et seq.*

the self, than of the existence of a not-self: and the self and the not-self, between them, make up the universe of things known. What, then, concerning the not-self, is known? Merely its resistance to the self, *i.e.*, merely its relation to, or its aspect in relation to, the self. What this not-self essentially, absolutely, or apart from its relation to the self, *is*, lies wholly beyond the range of our possible knowledge. From this point of view, to say of this unknown not-self that it is a substance or is made up of a diversity of substances, and that these substances can be defined by us, as something over-against ourselves, or that we can reduce that substance to the one essential attribute of extension,—all this is a tissue of unmeaning phrases; it is, to define and delineate the absolutely unknown.

Before advancing further, let us pause a little and make sure of our ground.

Is it quite certain, in the first place, that the argument by which Descartes has satisfied himself that corporeal things exist, leads up at last merely to a belief, or article of faith? What he says on this head is not very definite, but the scope of his reasoning may be expressed thus. I not merely believe, but know, that my self, and that an absolutely perfect Being, my creator, exist. It is repugnant to the nature of a perfect Being to have created me such that I shall be helplessly and irremediably deceived. True, I am in fact often deceived; but this is only in such matters, or in such a way, that there always exists a remedy which is, theoretically at least, within my reach. I have the power to suspend my judgment, and I know that I even ought to do so, whenever the materials for forming a correct judgment are not within my reach. Error consequently always arises from a fault of my own,

namely, from my permitting my will, which is a necessary factor in every judgment I make, to outrun my means of knowledge. The liability to error, and the penalties to which error is subject, thus together constitute for me a wholesome disciplinary process. I ought not to complain, but on the contrary should be thankful, that I can err, and even that I sometimes do err: since even my errors, if I will only trace them out to their root, are servicable to me, as training the self-control of my will. But it would be entirely otherwise with a liability to error which should be engrafted in my nature, and incurable by any efforts of my own. Gratuitously and uselessly to illude me with such a liability would be contrary to that truthfulness, not to say that love towards His creatures, which are included in the conception of a Being absolutely Perfect. Such a supposition therefore must be rejected, not as an article of faith, but as a necessary conclusion of reason from the known perfectness of the Creator.* And this "great propensity to believing that things corporeal exist," is one of those primary, congenital, affections of my nature which, if it be an illusion, I have no means whatever of rectifying. I have a right to say, then, not merely I believe, but I know, that this is no illusion,—that things corporeal do exist.

Now if we are to suppose that Descartes puts his argument on this ground, we have the right to ask him to

* Descartes in one passage at least expresses himself unequivocally in the sense that this cannot be otherwise:—"That God is not a deceiver, and that it is consequently *impossible* that any falsehood should be found in my opinions, without their being also in me some faculty bestowed by God for the purpose of correcting it."—(Ante, p. 195.)

modify it by another argument of his own,—namely, that in the universe of things created by an absolutely perfect Being, it is reasonable to suppose that there will be creatures of every degree of imperfection, down to the lowest. There will be—nay, we know there are,—creatures, sentient and susceptible of pain, yet incapable of reasoning at all. Between such creatures, and creatures whose natural gifts of reason are such that they are never deceived, man is confessedly a sort of middle thing, for man is sometimes deceived. What exact place in that middle he occupies, how near his intelligence may be to that of angels, and how near that of brutes, we have no means of inferring *a priori*,—it is a point we can only determine, if at all, by observation. We have no right, then, to affirm *a priori*, by any argument drawn from the perfectness of God, that man must be so constituted that his natural faculties cannot irremediably deceive him. Were it not so,—were his reason liable to incurable illusions,—he still could not say that his condition was worse than that of the brutes; since it certainly is better to have some, though but an imperfect, participation of reason, than to have none at all. No one maintains that a horse or a dog, or even a lobster or an oyster, has cause to complain of the imperfection of his nature, or to use it as an argument against the perfectness of his Creator. It would seem, then, that Descartes' argument cannot legitimately be set higher than an inference or act of faith. We may believe, and it seems natural to believe, that our inborn propensities, so far as these are purely rational, are calculated to guide us to truth and not to illusion: but, when all is said, we can get no further than to a belief.

Thus we are brought back to our question: This pro-

pensity to the opinion that things corporeal exist, is it a belief of the same rank, in respect of certainty, as the belief that we ourselves exist?

In the way in which Fichte puts the case, the two beliefs are correlative,—for we feel or are conscious of our energy solely in the act of encountering resistance, so that the energy and the resistance are the two momenta of each concrete unit of consciousness, and life itself may be described as the successive concourse or collision of the self and the non-self. But all this lies as yet in the distance for us: I mention it here only in order to indicate beforehand that there *is* a solution of the difficulty: what we at present have to consider is, whether the difficulty has been solved by Descartes.

The fact that the most eminent amongst the immediate followers of Descartes, in the course of their attempts to develope his doctrine further, passed on to a denial of the existence of material substance,—as was the case with Spinoza and Malebranche,—may lead us to suspect beforehand that the solution offered by Descartes cannot have been satisfactory. We ought, however, if possible, to trace out the precise nature of his failure.

The flaw lies, apparently, in Descartes' having overhastily quitted the standing-point which at the outset of his "Meditations" he had been at such pains to secure,—namely, that inner sanctuary of the self or thinker. He announces that there are two parallel or co-ordinate substances, Body and Mind. In order to make this discovery, it would seem necessary to shift one's point of view, — not, as heretofore, to look out upon the universe as a thinking being looks from within itself, but to stand as it were outside of and apart from both the world of thought and the world of matter, and regard

these as two kinds of substance equidistant from us the spectators.

It is interesting to note, in passing, that in this, probably unconscious, shifting of his point of view, Descartes anticipated the later speculative philosophy of Schelling and Hegel. It may be in itself a higher and a better thing,—always provided it is in our power,—to contemplate the universe from the standing-point of universal reason, and so that our own minds shall appear no nearer to us, for the purpose of such contemplation, than our own bodies, nay, than any other bodies are. But between the two standing-points we have to choose. We must not, as Descartes has done, go from one to the other, in the course of the same argument, without giving warning either to ourselves or our readers. Otherwise, we are sure to mislead one, if not both.

Let it be understood, then, that we are for the moment taking this new standing-point. We contemplate the universe, as it were from its centre. We conceive that God has created two distinct entities or substances, matter and mind, and has endowed the former with the essential attribute of extension, and the latter with the essential attribute of thought. Do these two substances now remain strangers to one another, extended substance unable to know the existence of thought, and thinking substance unable to know the existence of extension? By no means: we affirm indeed the former, but deny the latter, of these propositions. That which thinks does in some way obtain a knowledge of that which is extended. Then comes the question, How can this possibly be? What is there in common between thought and extension?

Now Descartes has told us that extension is precisely

that, concerning the nature of body, which we most, which we indeed alone, clearly and distinctly understand. He proves his assertion by pointing out that the science of mathematics, which deals with the various properties and measurements of space, that is to say of extension in its pure form, is a demonstrative science, based on axioms to which the mind assents, as by a certain affinity of nature, the instant it apprehends them, and giving as its results truths which the mind conceives to be necessary. How can this be, unless space, that is unless extension, is something mental,—a part of the mind's own intellectual mechanism, of that by which the mind thinks? In order to pursue mathematics, we need no diagrams but such as the mind can draw on its own camera, using no bodily organs. Here, if anywhere, the mind dwells and works alone. No experience from without, nothing corporeal, is needed, or is even serviceable, whilst the mind is thus engaged. So of all imagining and of all the remembering of images: the mind can and does for this purpose use an extension, which has no existence but within the mind itself. This is simply the doctrine of Kant, which has already been set forth.*

Space (for I need here say nothing concerning Time), whatever it may be in itself, is for us simply a function of the mind,—the function, namely, whereby the mind constructs its idea-images. And extension is, for us at least, simply the spreading out, marking, or occupying, such and such a portion of Space; or, if not the action, then the result of it, namely, so much space spread out, marked, or occupied, by the mind.

But—perhaps it may be said—there is a difference in kind between the extension which the mind conceives and

* Ante, pp. 248-250.

uses in imagining or in the study of mathematics, and that more solid and real extension, if we may so term it, which bodily substances have. The mind's extension is ideal only: it has about it this peculiarity, that wherever the mind perceives extension, it in the same act perceives externality to itself, either as actually existing in the object apprehended, or as existing in some object of which that directly apprehended is a copy or remembrance. My idea-image, which is extended, is an act or affection of my own exclusively: but it carries with it a suggestion that whatever it contains of extended has been, either in its aggregate, or in its parts,—its aggregate, in the case of a simple recollection, its parts, in the case of an image constructed by the fancy,—given to me from without, *i.e.*, from the corporeal. My self, as essence, or my thoughts, are not conceived, probably are not conceivable, as really occupying space. Thus the mind itself connects together space or extension, and body, and refuses so to connect together space or extension, and mind. Extension, then, belongs to body and not to mind.

That is to say, there is some quality or some incident of the extension of bodies which is not found in the "ideal extension" of the mind. If so, is this a quality or incident which the mind cannot apprehend? How, then, does the mind come to know that such a quality or incident exists in bodies? Are we not here in this dilemma? If bodies have an extension which is different in kind from the extension conceived by the mind, then it is not possible for the mind to frame a conception of that former kind of extension, and therefore is not possible for the mind to know that bodies have it: if, on the other hand, the extension of bodies is of the same kind

as the extension apprehended by the mind, then mind and body are not two distinct species of things, differenced, as Descartes puts it, by their possessing two distinct essences, the essence of mind being thought, and that of being, extension. So far it would seem that body has extension but not thought, whilst mind has extension *and* thought: thus the difference is merely that body has *not* something that mind has. The difference is simply a negation, and all we know concerning body, thus far, is that body does not think.

If, then, Descartes is right in saying that the essence of body, and all that we clearly and distinctly know concerning the nature of body, is extension, it follows that we know nothing else concerning its essence or its nature,—for what we do not clearly and distinctly know is, according to Descartes, equivalent to no knowledge at all,—beyond a bare negation. What ground have we then for saying that body exists? Before we have a right to affirm that an object exists, it surely is necessary that we should know something *positive* (not a mere negation) concerning that object. I may say, That which thinks, must exist: but what ground can I have for saying, That which does not think must—for this reason only—exist? Thus under the consistent development of Descartes' reasoning, body disappears.

I must acknowledge that the very facility of this way of refuting Descartes awakens a suspicion. Do we not here prove too much? does not the argument amount to this, that it was *impossible* for God to have created two totally dissimilar species, minds and bodies, and to have conveyed to the former a knowledge of the existence and likewise of the essence of the latter? Our argument is, the essence of body can only be known to mind through

something in mind which partakes of the same essence, and if the mind has that something, body is knowable by mind only by a negative,—*i.e.*, from its possessing that, and not some other, property of mind, and to be known only by a negative is not to be known at all. It follows, that body not only is not, but cannot be, made known to mind. This conclusion certainly seems to amount to an absurdity.

But the absurdity disappears if we modify, or more properly correct, our argument by saying: all that is intended is, that the human mind is incapable of comprehending in what way the existence of a substance wholly extrinsic and foreign to the mind can be made known to the mind, unless in the way of a primary, that is a simple and inexplicable, inner conviction or belief. Something within us, we know not what or whence, impels us to recognize the outwardness of some of our impressions: they are felt to be, in one aspect indeed our own, for we apprehend, are conscious of, remember, and can reproduce them; yet, as and when they first come to us, though not when we reproduce them, they conveyed to us the conviction that they come to us from without. What that "without" is, as to its own intrinsic nature, we know absolutely nothing of. In saying this, we by no means affirm that it was impossible for God's omnipotence to have made that intrinsic nature of the "without" known to us: we say simply that it does not appear that He *has* done so; and that we at present cannot in the least guess by what means, had He pleased, He would or even could have communicated to us such knowledge.

Repudiating, then, all speculation as to the range of the possible, we are simply to consider whether the actual

state of the case is not, that man, as man is constituted, can know nothing but what has first entered into his mind, and can receive nothing into his mind except so far as he forms the conception of it: that is to say, his inner world, all that he has there, whether it has come from within or from without, must become for him ideas or conceptions, before it can for him have any existence.* Matter or body is for him nothing, except so far as he has converted it into conceptions, in which process everything (if there be anything) which is not mental has been eliminated. For him, then, matter is non-existent: his inner world is, and, for aught he can see to the contrary must be, wholly intelligential or mental. Spirit can come into contact only with the spiritual. Even if we talk of primary beliefs,—of an instinctive, unexplained, yet irresistible conviction that body or a material universe, having a nature wholly unlike mind, really exists,—this does not alter the case: for this instinct, or whatever it be, is at last only a feeling, that is to say, a something which belongs to our own spiritual or intelligential nature.

Thus, turn it as we may, the dualism of Descartes breaks down utterly, and his system leads us inevitably into Idealism, and there leaves us.

And yet, for some unexplained reason, this Idealism does not appear to be satisfactory even to those who hold it. The great mass of mankind, even metaphysicians themselves when they quit their studies, believe idealism to be

* Why not, it may be asked, here add *perceptions?* The answer is, perception is momentary, really infinitesimal, and all of it that abides in the mind, so as to be a factor in knowledge, must first have been converted into remembrance,—for only in that form can it be reflected on.

mere paradoxical nonsense; and the task of philosophy, as Cousin has said, can be nothing less than to take up, explain, and justify, all the fundamental beliefs of mankind.

Here then is a problem set up for solution. And thus Descartes performs his function as one link in the great chain of the historical development of philosophy. He solves some problems, and in doing so opens out a fresh and deeper one.

THE END.

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